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Sixty-First Annual Report

of the

Director of Public Health for the Government of Bombay

For the Year 1924

With Appendices, including the

Annual Report of the Sanitary Board Bombay Presidency

and the

Annual Reports of the Health Officers of the Ports of Bombay, Karachi and Aden

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ANNUAL SANITARY REPORT, 1924.

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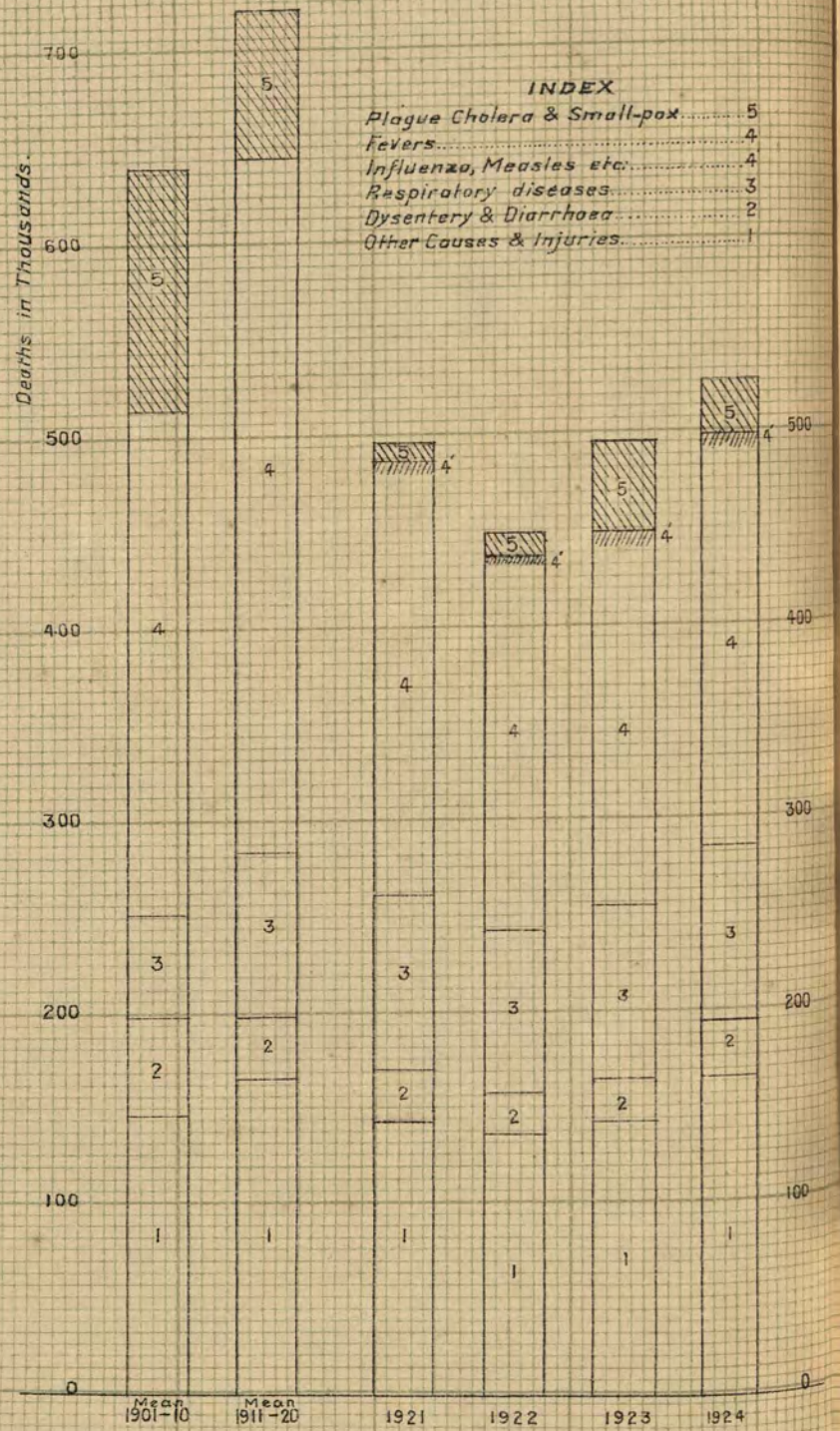
Chart I

DEATHS in 1924 and PREVIOUS YEARS.



ANNUAL SANITARY REPORT FOR 1924.

SECTIONS I TO IV.

No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

Note.—The birth and death ratios are calculated on the Census population of 1921: Europeans 19,247; Anglo-Indians 10,221; Indians 19,165,614; Total population of the Bombay Presidency 19,195,082.

1. *Europeans.*—290 births and 274 deaths were recorded against 318 and 232 in 1923 equal to a birth-rate of 15·07 per mille against 16·52 in 1923 and a death-rate of 14·24 against 12·05. Of the births, 154 were males and 136 females against 163 and 155 in 1923 and the deaths were 179 males and 95 females against 149 and 83. Ten of the deaths were due to small-pox; 42 to dysentery and diarrhœa, 53 to respiratory diseases, 13 to injuries and 124 to other causes as compared with 6, 25, 45, 10 and 110, respectively, in the previous year.

The increase in the number of deaths occurred chiefly in Bombay City where 131 male and 67 female deaths were recorded against 121 male and 55 female respectively in 1923. It produced 9 of the 10 small-pox deaths for the whole Presidency.

2. *Anglo-Indians.*—308 births and 242 deaths were registered against 222 and 218 in 1923. The birth and death ratios per mille for the year were, therefore, 30·13 and 23·63 respectively compared with 21·72 and 21·33 in 1923. Of the births 156 were males and 152 females against 122 and 100 in 1923, while of the deaths, 137 were males and 105 females against 116 and 102 in the previous year. Of the deaths, 5 were due to epidemic diseases; 23 to dysentery and diarrhœa, 53 to respiratory diseases and 128 to Other Causes against 2, 32, 51 and 98 respectively in 1923.

East Khandesh district returned 27 male and 17 female Anglo-Indian deaths, an unusual contribution which is explained by the Railway District Surgeon as "accounted for by increase in population on account of staff changes in the Railway area".

3. *Indians.*—The 1921 Census shewed the Indian population of the Presidency including Sind as 19,165,614. The population of the rural circles was 15,421,829, town circles 3,663,048, cantonments in British territory 80,737 and cantonments in Native States 111,391.

Nagothna Mahal in Kolaba District ceased to exist as a separate Mahal and its villages from 11th October 1923 have been included in the Pen and Roha talukas.

Births.

4. 682,321 births were registered, a slight increase (1,411) over the figure for the previous year but an increment of 27,340 on the decennial mean figure—654,981. The number of births recorded in previous years and the corresponding birth-rates are as follows:—

	Births.	Birth-rate.		Births.	Birth-rate.
1901—1910 mean	617,736	33·42	1918 ..	619,224	31·61
1911 ..	705,090	36·00	1919 ..	546,460	27·90
1912 ..	684,890	34·97	1920 ..	593,175	30·28
1913 ..	684,803	34·96	1921 ..	624,640	32·59
1914 ..	733,076	37·43	1922 ..	620,770	32·39
1915 ..	726,780	37·10	1923 ..	681,910	35·58
1916 ..	704,672	35·98	1924 ..	682,321	35·60
1917 ..	699,823	35·73			

It will be noted that the steady recovery from the set-back to the birth-rate that resulted from the Influenza pandemic of 1918 is maintained.

The slight increase in births is, however, altogether a matter of increase in the Guzerat figure; omitting that province, there is a decrease as compared with the previous year and it is shared by all the four other Registration Districts as follows: Central 6,066, Western 4,767, Southern 824 and Sind 457. In Guzerat Registration District, 121,149 births were recorded, the highest figure since 1917. Its total for 1922 and 1923 was 104,396 and 109,417 respectively.

5. The birth-rate for the year for the Presidency as a whole was 35·60 against 35·58 during the previous year. For the Presidency proper excluding Bombay City and Sind, the rate was 39·91 or the same figure as in 1923 and for the Province of Sind 22·05 against 22·19 in 1923. The rates recorded in other parts of India are given below:—

Bengal ..	.. 29·45	Bihar and Orissa	.. 35·7
Madras ..	.. 34·89	United Provinces	.. 34·72
Assam ..	.. 31·04	Punjab ..	.. 40·05
Burma ..	.. 27·40	Central Provinces	.. 44·18

6. In the Presidency proper excluding both Bombay City and Sind the birth-rate for rural areas was 41·59 and for urban areas 29·77 against 41·57 and 29·89 respectively in 1923.

Of the 27 districts in the Presidency, 8 returned a high birth-rate of 40 or more per mille of population, *viz.*, Broach (48·74), West Khandesh (46·91), Ahmednagar (46·46), East Khandesh (45·68), Nasik (44·58), Surat (42·50), Belgaum (40·75) and Panch Mahals (40·27). In the case of Ahmednagar District the high birth figure may be taken as due to present inaccuracy in the Census figure on which it has to be calculated. Famine and temporary emigration affected that district during the Census year (1921).

7. Of the 189 talukas, pethas and mahals in the Presidency proper, 163 or as many as 86 per cent. returned birth-rates over 35 per mille of population—28 of those areas yielding figures above 50 and 83 areas between 40 and 50 per mille. The extreme rates for Pathardi in Ahmednagar 76·08 and 14·20 for Poona City taluka and 19·03 for South Salsette taluka may be taken as due to population abnormalities. Omitting them, Sakri Taluka in West Khandesh at 61·09 and Nandgaon in Nasik at 58·41 were the highest, and the lowest birth-rates were: Supa (Kanara) 25·43; Bassein (Thana) 28·37; Navalgund (Dharwar) 29·04; Mawal (Poona) 29·31; and Nawapur (West Khandesh) 29·77.

8. Out of 86 towns in the Presidency proper, 17 returned birth-rates exceeding 40. In general the Guzerat towns shew higher rates, *e.g.*, Borsad (51·02), Jambusar (48·64), Umreth (45·92), Dhandhuka (45·56), Dholka (45·15), Broach (43·00), Kapadvanj (42·92), Mehmedabad (42·66), Ahmedabad (41·17), Ankleshwar (40·40). There are six elsewhere over 40—Nasirabad (50·46), Honawar (44·49), Gokak (43·15), Ranebennur (41·28), Parola (40·81), and Erandol (40·04). 27 towns recorded birth-rates between 30 and 40 per mille of population and 30 towns shew rates between 20 and 30. In the remaining 12 towns the recorded birth-rates were under 20; amongst the lowest being Kurla 12·74, Poona (Suburbs 12·53; City 13·86), Satara 13·98, Karad 16·53 and Amalner 17·34 all of which appeared in the same category last year.

Inefficiency in registration on the part of municipalities must be the chief factor in producing these inordinately low rates. For example, in the case of Poona, a prosperous city, a low birth-rate, varying at figures anywhere between 7 and 21 per mille is returned year after year and defect in birth registration is further evidenced by the fact that whereas only 1,845 births were recorded in the year under report, 1,922 deaths of infants under 1 year were registered.

9. The births recorded in Bombay City were 21,457 which is 793 more than in the previous year, and equivalent to a birth-rate of 18·68 or an increase of 0·69.

10. Sind recorded 71,907 births, a slight decrease of 457 on the figure for 1923 but an increase of 4,178 over the quinquennial mean. The rate for the Province was 22·05 against 22·19 in 1923. The Assistant Director writes:

"Two districts only of the province, Karachi and Hyderabad, shew birth-rates that compare badly with the mean of the preceding quinquennium. Included in them is the area of saltish soil, known as the Lar, where climatic and economic conditions become unduly bad with a little more than the usual rainfall and the population is more given to migration than in other areas."

The birth-rate for rural areas was 19·68 and for urban areas 35·27, as against 19·80 and 35·49 respectively in the preceding year. It is seen, therefore, that the slight decrease is shared by both rural and urban areas and the causes, which were chiefly unfavourable weather conditions, were in operation in both. Over rural areas the birth-rate

varied from 40·45 for Naushahro Feroz to 9·15 for Tatta Taluka. Of the 61 talukas and mahals in Sind, only 6 returned birth-rates above 30 per 1,000 of population, *viz.*, Naushahro (40·44), Sukkur (36·90), Diplo (34·14), Kandiaro (33·10), Garhi-Yasin (30·32) and Shahdadkote (30·00). For 37 of these areas the rates were all below 20 per mille of population. Of these, excessively low rates—of 12 per mille and under—were returned from six of the areas in Karachi District, from three of those in Hyderabad and from two in Thar and Parkar District. As usual the urban birth-rate exceeds the rural birth-rate. In addition to the main reason—difference in the efficiency of recording agencies, the Assistant Director adduces the occupational and predominantly male characters of the population in villages.

The efficiency of registration in the urban circles of Sind varies. Karachi (41·80), Hyderabad (41·29), Ratedero (41·15), and 5 others shew birth-rates exceeding 30 per mille for the year under report. Seven shew rates between 30 and 20 and the remaining 4 recorded rates that indicate extreme default, *viz.*, Mirpurkhas, Kotri, Umarkote and Tatta with 3·64, 13·56, 13·57 and 16·88 respectively.

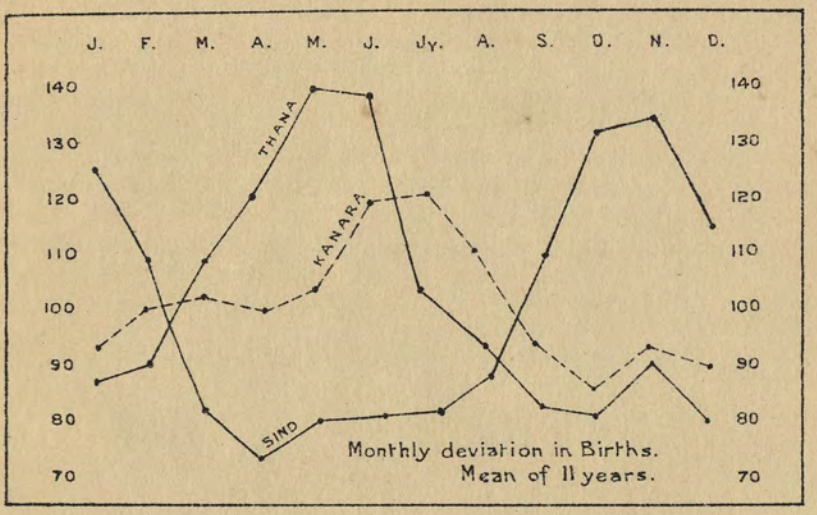
"Amongst towns which shew birth-rates lower than their normal are Karachi, Tatta, Kotri, Mirpurkhas, Nawabshah, Tando Adam and Sukkur. The causes for the fall in birth-rate in Karachi City are congestion in house accommodation. Karachi has a greater degree of congestion than Bombay or Ahmedabad. The result of being forced into crowded tenements is that women are left in the mofussil. Migration has an intimate connection with birth-rates. The population of many Sind towns is occupational and occasional rather than permanently domiciled. Thus many of the men of Mirpurkhas keep their women folk in Hyderabad and the same can be said of Tando Adam where housing is an active problem. Nawabshah has still an unsettled population as it is a new town. Sukkur town has unaccountably fallen in birth-rate. Although housing is also a problem still insufficient attention to registration is also a factor here."

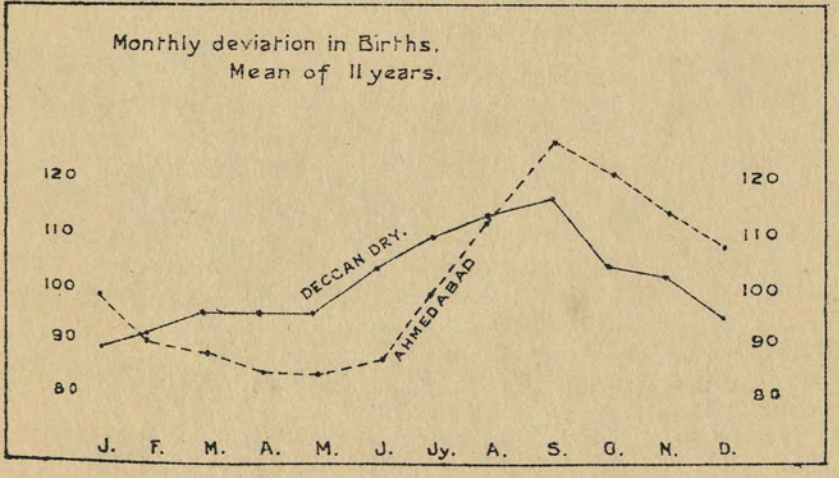
11. *Births in Cantonments.*—Karachi (32·95), Nagar (26·28), Kirkee (16·52) and Ahmedabad (13·18) shew the highest rates, while for the remainder the figure was below 10, the lowest (0·85) being recorded in Santa Cruz. Abnormal sex distribution amongst the civil as well as the military populations of such outlying cantonments explains the low birth-rate. The fall in the case of Hyderabad Cantonment is probably due to the increasing facilities for confinements available in the city close by.

12. *Births according to Sex.*—Out of 682,321 births, 354,631 were males and 327,690 females equal to ratios of 18·50 and 17·10 per mille of population as compared with 354,890 and 327,020 in 1923. For every 100 female births there were 108·22 male births, the previous year's figure being 108·52. The percentage of male to female births registered varied from 101·70 in Dharwar District to 136·32 in Upper Sind Frontier District. In all Sind districts the percentage is very high.

13. *Seasonal Incidence of Births.*—For the Presidency as a whole all that can be said is that births are more numerous in the second than in the first half of the year. This fact is merely a resultant. When the component areas are separately reviewed, each is found to have a pronounced and unvarying seasonal sequence in births of its own. (*Vide* graphs given below.)

CHART II


J. F. M. A. M. J. Jy. A. S. O. N. D.
140
130
120
110
100
90
80
70
THANA
KANARA
SIND
Monthly deviation in Births.
Mean of 11 years.


Monthly deviation in Births.
Mean of 11 years.
120
110
100
90
80
DECCAN DRY.
AHMEDABAD
J. F. M. A. M. J. Jy. A. S. O. N. D.

Thus for Sind, births are most numerous in October and November and fewest from March to July and the curve is regular and well-marked, *vide* chart II. The North Konkan curve (Thana and Kolaba) has its peak and base at nearly opposite periods of the year to the Sind curve though curiously similar in other characters. South Konkan (Kanara-Ratnagiri) differs from North Konkan in that the curve of births commences earlier and falls later (so does the curve of rainfall) and there is less concentration. Another type is exhibited by the dry Deccan (East Khandesh, Nagar, Poona, Satara, Sholapur and Bijapur) where the maximum is in July-September and the minimum in January-February. "It is noteworthy that within this area the district of Sholapur (where the hot weather is the most severe and the absence of forest country the most complete), yields a curve shewing the longest depression and the highest peak." Guzerat (Kaira, Ahmedabad and Broach) shews a fifth and quite distinct type of periodicity in births. In other districts, not named above, the curve is composite in type but in all cases the type is constant for each given tract. Bombay City is alone exceptional in that its cycle is almost exactly the inverse of that of the North Konkan in which the city is situated. Migration, urbanization and absence of forests offer only partial explanations. The curve is independent of the general Health of the City.

Figures for 11 years were supplied to the acting Director of Labour Bombay, and the following are amongst the conclusions he arrives at*:—

(1) The birth cycle curves for districts of this Presidency are either simple or composite.

(2) The composite curves can be shewn to be curves compounded of data from tracts assignable to one or other of the simple types.

(3) The simple types differ widely region by region.

(4) The European type, on which so many theories have been built up, is entirely absent.

(5) In particular the anthropological theory, namely, the annual rutting season in the spring, is completely disproved.

(6) The harvest theory of the Imperial Gazetteer of India is also disproved.

(7) The dominating factor seems to be local climatic conditions, conceptions being far more frequent in cold than in hot months.

(8) In the forest and coastal country with a more or less equable climate there is a tendency for conceptions to be most frequent in the latter portion of the rainy season, the cause being obscure.

14. *Still-births.*—11,141 still-births were registered or 1·63 for every hundred live-births. The corresponding figures for 1923 were 11,221 and 1·65 respectively. The percentage of still-births to live births

*Note.—The article in full by the late Mr. L. J. Sedgwick, I.C.S., is of very great interest and appeared in the "Labour Gazette" (Government of Bombay) for June 1925.

recorded varied from 0·25 for Ahmednagar District to 8·42 for the City of Bombay. For other areas, Kanara (4·88), Dharwar (3·21), Kolaba (2·96), Bijapur (2·74), Karachi (2·74), Surat (2·26), Belgaum (2·15) and Poona (2·06) shew the highest percentages.

The still-birth figures in general may be taken as in default. In the case of Sind rural population the proportion of still-births is very small although venereal diseases are said to be common amongst the rural population, the result of the tolerant social attitude that has arisen towards prostitution. At the Fairs even in municipal towns, special encampments are allotted to these women on a substantial rental and they have thus been encouraged to immigrate into the province in large numbers. The problem needs tackling.

Deaths.

15. 529,576 deaths were registered against 496,244 in 1923, 520,128 the quinquennial and 691,042 the decennial mean. Comparison is shown in graphic form at the beginning of this Section. The totals for other years are shown in the following table :—

Year.	Deaths.	Year.	Deaths.
1901-1910 mean ..	639,483	1920	516,296
1911-1915 mean ..	539,836	1921	498,350
1916 ..	652,584	1922	452,581
1917 ..	798,406	1923	496,244
1918 ..	1,724,674	1924	529,576
1919 ..	637,170		

16. The recorded death-rate for the whole Presidency works out to 27·63. The death-rate in 1923 was 25·89, the quinquennium mean being 27·33, while the decennial mean was 35·44.

For other parts of India the death-rates recorded are as follows :—

Madras	24·53	Bihar and Orissa ..	29·1
Bengal	25·86	Punjab	43·43
Assam	27·30	United Provinces ..	28·29
Burma	21·54	Central Provinces ..	32·59

Excluding Bombay City and Sind, the death-rate for the Presidency was 29·37 against 28·16 in 1923.

The death-rates for rural and urban areas in the Presidency as a whole were 26·79 and 31·09 respectively against 24·87 and 30·11 in 1923.

Of the districts, the highest death-rates were returned by East Khandesh (38·53), Sholapur (33·38), Dharwar (33·17) and Bijapur (32·28) and the lowest by Bombay Suburban (17·75) and Panch Mahals (19·97).

17. Of 189 talukas, pethas and mahals in the Presidency proper, 18 as compared with 11 in the previous year, shew death-rates exceeding 40. These are Ambernath (47·07), Kod (46·57), Murgod (45·61), Pathardi (44·98), Pachora (43·61), Jamner (43·23), Shevgaon (42·71), Yeola (42·55), Edlabad (41·87), Malegaon (41·23), Chalisgaon (41·19), Erandol (40·73), Supa (40·69), Chopda (40·59), Mulshi (40·44), Mundargi (40·30), Ranebennur (40·09) and Nandgaon (40·02). 23 returned death-rates between 35 and 40 and 48 recorded rates between 30 and 35.

Of the remaining 100, nine returned death-rates below 20 per mille of population.

The death-rate in 8 of the 86 urban areas exceeded 40 per mille of population. These are Ilkal (53·39), Barsi (47·20), Poona City (45·56), Dharangaon (43·04), Nasirabad (40·37) and Ranebennur (40·27) and two pilgrim towns Pandharpur (68·70) and Guledgud (45·59). In 21 other towns the rate exceeded 30.

18. *Corrected death-rates.*—The following table gives the death-rates corrected in accordance with age and sex distribution for the Presidency and for the six towns for which such correction is possible :—

	Standard death-rate.	Factor for correction.	Recorded death-rate.	Corrected death-rate.
Presidency (excluding Bombay City and Sind)	39·8	1	29·37	29·37
Poona ..	37·0	1·08	45·56	49·20
Bombay City ..	28·6	1·39	33·44	46·48
Ahmedabad ..	37·6	1·06	39·83	42·22
Sholapur ..	39·4	1·01	39·17	39·56
Surat ..	39·0	1·02	32·45	33·10
Karachi ..	38·5	1·03	30·32	31·23

19. The returns of the chief cities may be briefly noted on as follows :—

Bombay.—Population 1,148,815. The registered deaths amounted to 38,417 as against 37,614 in 1923. The number of infantile deaths was 9,080 or a ratio of 423·17 per 1,000 registered births, as against a rate of 413·91 in 1923. The chief causes of death shewn in the returns were small-pox, fevers, dysentery and diarrhœa and respiratory diseases—pneumonia and phthisis contributing a large number of deaths. The Excutive Health Officer writes :—

"In Bombay City the principal causes of the insanitary conditions which maintain the death-rate at a high level even in non-epidemic periods are the insufficiency of the water supply, the insufficiency of the sewers, the continuance of the basket privy system of conservancy, the density of houses and persons per acre and overcrowding of persons in rooms and tenements."

Ahmedabad City.—Population 270,899. The registered deaths were 10,777 against 10,097 in 1923. The number of infantile deaths was 3,829 equal to a ratio of 343·69 per 1000 registered births, as against a rate of 297·61 in 1923. The increase in infant mortality is due to the prevalence of epidemic small-pox in the city. The total births of children registered numbered 11,141 giving a birth-rate of 46·17 per mille of population compared with 40·86 in 1923. The birth-rate for the city exceeds that for Guzerat as a whole by 5·18 and the death-rate by 12·56. The chief causes of death shewn in the returns are small-pox, fevers and respiratory diseases.

Poona City.—Population 133,122. The total deaths registered amounted to 6,055 against 5,126 in 1923. Births registered were only 1,845 equal to a birth-rate of 13·86, compared with 16·37 in the previous year. The chief causes of death shewn in the returns were small-pox, fevers, and respiratory diseases; measles, pneumonia

and phthisis appear largely in the returns under the latter two headings.

Karachi.—Population 199,014. The total deaths recorded were 6,034 as compared with 6,356 in 1923. Measles, pneumonia and phthisis were amongst the chief causes of death. The birth-rate shews a fall from 43·49 in 1923 to 41·80. The fall in births (from 8,656 to 8,319) would be expected to shew a corresponding reduction in infant deaths but instead there was an actual increase (from 1,891 to 2,128). Measles is the probable explanation. The ratio of infantile mortality per 1,000 births registered also shews an increase—from 218·46 to 255·80.

Surat.—Population 117,428. The total deaths recorded were 3,810 against 3,643 in the preceding year. The chief causes of death shewn in the returns are fevers and respiratory diseases. The birth figures are the highest for ten years. 3,855 births were registered equal to a birth-rate of 32·83 as compared with 25·32 in 1923. This is partly due to actual increase seen throughout Guzerat and partly to improvement of birth registration. There is an increase in the deaths of infants 1,349 as against 1,147 for 1923 but a decided improvement in the ratio of infant deaths per 1,000 registered births, *viz.*, 349·94 as against 385·81.

Sholapur.—Population 119,347. The unfavourable contrast made in the last annual report between the 1923 and 1922 record is to be repeated for 1924 as compared with 1923. Total deaths shew a further increase—4,675 as compared with 4,467; fever, plague and measles were again prevalent and small-pox took the place of the cholera epidemic of 1923. The birth-rate shews a further decrease to 30·41 per mille of population from 33·70 while the infant mortality rate per 1,000 recorded births shews a further rise to 252·69. The primary requirements in regard to drainage in the city are now engaging the active attention of the municipality and work on the scheme drawn up by the Sanitary Engineer is about to commence and none too soon. Increase in congestion and population has outpaced improvement in sanitary services generally in the city.

20. *Death-rate in Sind.*—The death-rate for Sind was 17·71 as compared with 13·23 in 1923 and 15·07 the average of previous five years. The increase over last year's figures appears under "malaria" and pneumonia. The urban (27·33) greatly exceeds the rural death-rate (15·88) as in previous years for reasons commented on in the case of births (paragraph 10). The urban death-rates ranged between 11·42 for Tando Adam and 35·89 for Hyderabad, while the rural death-rate ranged between 9·60 for Tatta taluka and 26·52 for Manjhand mahal.

The Assistant Director, Public Health, Sind, reports:—

"It will be seen that after 1919 there was a steady fall in mortality, the lowest point being reached in 1922 (12·42), the year of good health. 1923 shewed a slight increase and the year under report now shews a very marked increase. The cause was malaria, in epidemic form, such as has visited the Province at intervals of 5 to 7 years. Compared with the last epidemic year 1917, mortality is very much lower though morbidity from malaria was quite as extensive. There are no statistics on which to calculate morbidity but in a number of villages toured in, 96 per cent. of the population were found to have suffered from malaria."

"The comparative small mortality was due, in part at least to the fact that the general population are now alive to the benefits of quinine as a cure and Government can rightly claim that they have been the means of saving an enormous number of lives by arranging for general and free distribution of the drug. This was effected this year through the agency of various departments, societies and persons."

21. *Death-rate in Cantonments.*—The lowest death-rate was recorded 0·85 in Santa-Cruz while Kirkee headed the list with a rate of 30·41 (as compared with 21·65 in the previous year). Respiratory diseases in the latter cantonment were responsible for 16·52 or over half of that ratio.

22. *Births* versus *Deaths.*—Over the Presidency as a whole births exceeded deaths by 152,745 or a "natural increase" of 0·80 per cent. on the population compared with 0·97 per cent. for the year previous. In the Presidency, excluding Sind and Bombay City the percentage of increase amounts to 1·05. Guzerat records an unusually high increase of 1·37 per cent. For Sind the figure is 0·43. In Bombay City, on the other hand, deaths exceeded births by 16, 960 or 1·48 per cent. of the City's population. Further details are given in columns 6 and 9 of Annual Form No. II.

23. *Mortality according to Sex.*—275,426 male and 254,150 female deaths were recorded giving death ratios per thousand of each sex of 27·41 and 27·68, respectively, against 25·70 and 26·11 for 1923. For every 100 females, 108·37 males died as compared with 108·51 in 1923. In Sind, the ratio of male to female deaths during the year was 119·59 to 100.

Infant Mortality.

24. There were 130,439 deaths among infants under twelve months corresponding to a ratio of 191 per 1,000 registered births as against 108,912 or a ratio of 160 in 1923. The male and female rates were 199 and 183, respectively, as compared with 167 and 152 in the previous year.

Infant mortality 1924, compared with previous years.

Year.	Deaths under 12 months.			Births registered.			Infant death-rate per 1,000 births.			Infant deaths per 100 of total deaths.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1924 ..	70,489	59,950	130,439	354,631	327,690	682,321	198·77	182·95	191·17	24·63
1923 ..	59,228	49,684	108,912	354,890	327,020	681,910	166·89	151·93	159·76	21·95
1922 ..	57,130	47,841	104,971	323,631	297,139	620,770	176·53	161·01	169·10	23·19
1921 ..	60,231	51,023	111,254	325,751	298,889	624,640	184·90	170·71	178·11	22·32
1920 ..	59,236	49,440	108,676	309,463	283,712	593,175	191·42	174·26	183·21	19·36
1919 ..	58,950	51,398	110,348	285,195	261,265	546 460	206·70	196·73	201·93	17·32
1918 ..	94,553	83,124	177,677	322,546	296,678	619,224	293·14	280·17	286·93	10·32
1917 ..	79,984	71,649	151,633	363,460	336,362	699,822	220·06	213·01	216·67	18·99
1916 ..	75,328	65,304	140,632	365,057	339,615	704,672	206·34	192·29	199·57	21·58
1915 ..	67,440	57,569	125,009	376,930	349,850	726,780	178·92	164·55	172·00	24·48

"A study of the above table shews that in the years when total deaths are high, the number of infant deaths also runs high. (The infant deaths in relation to number of births also is highest in unhealthy years). The proportion of the total deaths contributed by infants tends to follow the inverse rule, *viz.*, the higher the total of deaths, the less is it constituted of deaths of infants. This would suggest that a measure of the extent to which infants enter into the total mortality figure is at the same time a measure of the healthiness of the year for the rest of the population. If this be true, it argues that the year under report was exceptionally healthy for all except infants the percentage of infant deaths to total (24·6) being the highest for 10 years. There is substantial support for this conclusion in an analysis of the death-rates for each age-period *vide* Diagram III where it will be seen that except for the extremes of life—the very young and the aged—mortality was well below the normal at all age-periods."

It is in any case clear that infants and young children do not participate in the waves of prosperity in health *pari passu* with the other age-periods. The reasons are that there are death factors peculiar more or less to their own age group, some constant, some variable; such are: defects in regard to maternity and infant care; the fact that infants (and children) are left without the protection afforded by vaccination during the earlier months of their life. The year under report was one of severe and widespread small-pox.

Of the infants who died, 49,377 were in their first month of life (27,388 under and 21,989 over one week); 44,556 were over one month but not exceeding six months and the remainder 36,506 were between six months and twelve. The percentage of the total infant mortality under each of these three sub-groups works out to 37·8, 34·2 and 28·0, respectively.

The details of the average hundred infant deaths in each Registration District will be seen in the following table:—

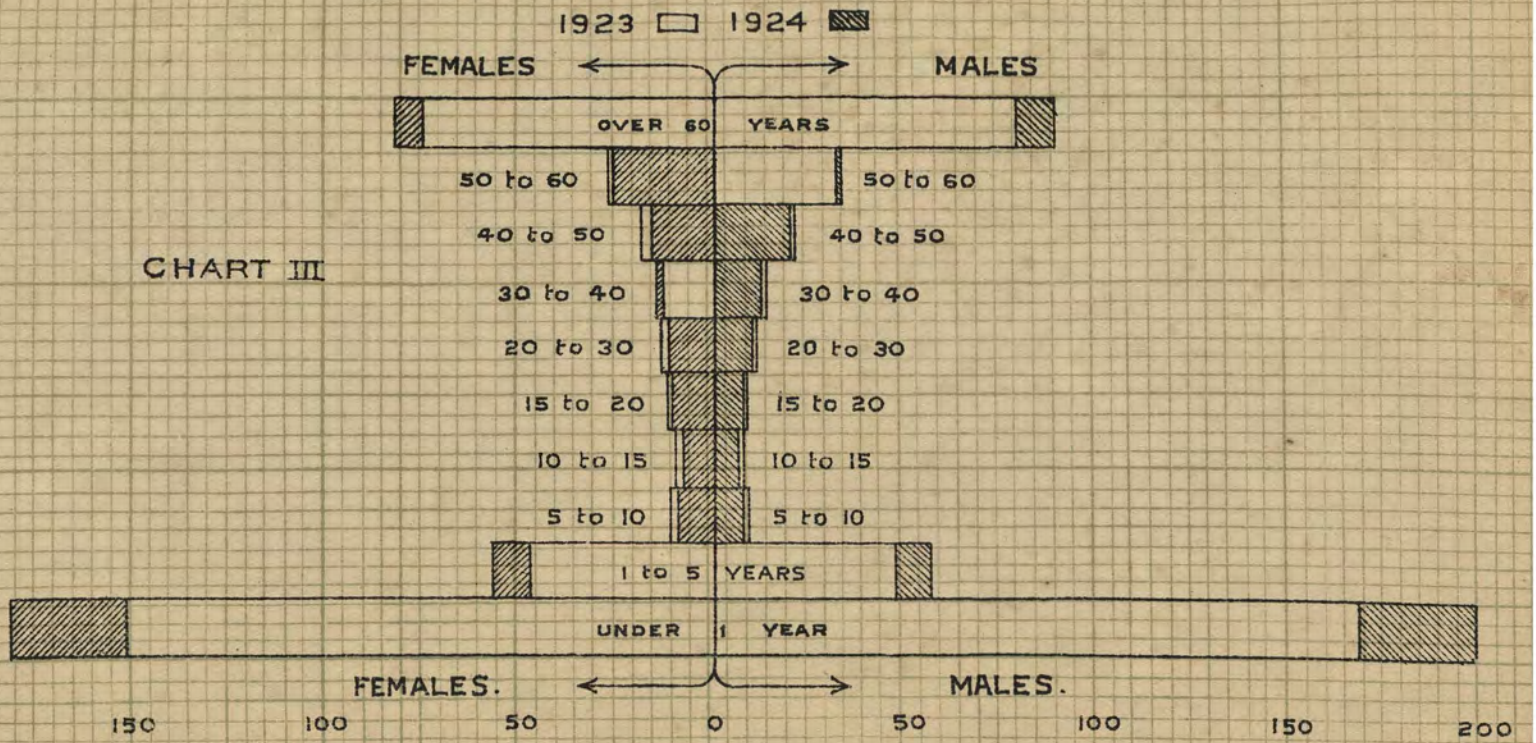
Districts.	Infantile deaths.		Not exceeding one month.	1—6 months.	6—12 months.
	In every 100 total deaths.	Per 1,000 births.			
Western R. D.	26·92	200·63	36·3	37·3	26·4
Central R. D.	23·87	174·40	38·5	33·9	27·6
Southern R. D.	20·34	163·03	43·8	34·4	21·8
Guzerat R. D.	27·90	185·64	34·6	36·9	28·5
Sind R. D.	24·82	199·31	37·4	26·8	35·8
Bombay City	23·64	423·17	37·2	27·9	34·9
Presidency	24·63	191·17	37·8	34·2	28·0

Mortality amongst infants except in Guzerat and Western Registration District was greatest in the first month of life.

The urban and rural infantile death-rates per 1,000 births for the Presidency as a whole were 297·80 and 172·55, respectively as compared with 261·51 and 142·02 in the previous year. The highest rural infantile death-rate was recorded in East Khandesh (234·32) and the lowest in Ratnagiri (94·45). Amongst the larger towns the following return the highest rates:—Bombay City (423), Barsi (422), Surat (350), Ahmedabad (344), Shikarpur (318), Satara (299), Viramgam (294), Nasik (277), Kurla

DEATH-RATE AT EACH AGE-PERIOD

CHART III



(274), Jacobabad (268), Bhusawal (266), Thana (256), Karachi (256) and Sholapur (253).

Detailed figures are given in Annual Form No. VI (*a*). The Assistant Director of Public Health, Central Registration District, reports:

"Forty to 50 per cent. deaths of the infants under one yearar e recorded as "under one month" in this Registration District and are classified under convulsions ("Satvai") or debility. "Satvai" is a Goddess who takes away children during the first week. To ascertain the exact cause a village to village enquiry extending for some years shews that the symptoms as related to me conform to the classical symptoms of tetanus. Tracing the cause it appears to be due to the dirty instruments used by the village midwife when cutting the cord. The untrained *dai* cuts the cord immediately the child is born and without waiting for the pulsations to cease and with any instrument that is handy."

Fully trained *dais* at centres cannot meet with any great success, because the majority of the people are unable to pay the fees although they may recognise the benefits of a trained *dai*: "Even in big towns like Poona, having many hospitals and a fairly large number of qualified midwives the infantile and maternal mortality is very great. That the maternal mortality is high is shewn by the fact that the majority of men in Poona City at the age of 40 have lost by death one or more wives as the result of child-bearing. What is wanted is to accept the local *dai* in every village as firmly established and to teach her the most elementary principles. Many lives could be saved if she is even induced to practice non-interference and cleanliness."

The following is a brief extract from the section that deals with infant mortality in the annual report of the Executive Health Officer, Bombay Municipality:—

Bombay City.—The number of deaths among infants under one year of age was 9,156 being 524 more than in 1923, but 658 less than the annual average in the ten years 1914-1923.

The infant mortality rate expressed as the number of deaths in infants per 1,000 registered births was 419 as compared with a rate of 415 in 1923 and of 478, the annual average in the decinnium (1914-1923).

Of the total deaths 5,997 occurred among infants born in Bombay and 3,159 in infants born elsewhere.

Were the rate to be calculated only on the deaths of infants born and registered in Bombay in proportion to the registered births it would be reduced from 419 to 275.

The fact that of the infants dying in the City nearly one-third come from other places implies, when allowance is made for the still larger number of those who come from other places to Bombay and survive, the existence in the City of an infant population much in excess of the registered births which are taken to represent the infant population on which the infant death-rate is cast.

The same facts indicate an immigration of infants on a scale which is probably very much greater than in other cities and which is probably in a large measure accounted for by the custom already referred to whereby women belonging to the City go to their homes in the country for confinement. The births of their children who are brought back to the city at the age of two or three months thus come to be registered in the place where they occur and not shewn in the City registers although such children in number amount to nearly one-third of the total infant population.

On the whole it seems probable that the recorded rates for Bombay both absolutely and comparatively overstate considerably the magnitude of the rate of loss of infant life.

On the other hand the rate is understated by the alternative method of rejecting all deaths in outborn infants, because their rejection could only be justified by an allowance for or the actual addition of, the deaths elsewhere of infants born and registered in the City. The balance would no doubt be much in favour of the city rates, but in the absence of the necessary data, it can only be suggested that a fair rate for comparative purposes

would ably approximate more closely to the lower figure 275 than to the higher figure 419 which represents the officially recorded rate for the year.*

Causes of Death.—It will be seen that 6,638 or nearly 72 per cent. of the total deaths in infants were due to diseases of the Respiratory System, Infantile Debility and Premature Birth against 71 per cent. (6,155) deaths in 1923. Diarrhœa and Enteritics caused 674 deaths, malaria, Ague and Remittent Fevers 63 deaths and Convulsions 1,016 deaths. The deaths from small-pox and measles numbered 218 and 56 respectively.

Quinquennial Averages.—Compared with the averages of the preceding five years, the total number of deaths shews a decrease of 1,654, the principal decreases in the mortality being 833 under diseases of the respiratory system, 122 under Ague and Remittent, Fever and Fever not defined, 40 under diarrhœa and Enterities, 14 under measles and 4 and 3 under malarial fever and dysentery respectively. On the other hand increases were registered under small-pox (134) and infantile debility and premature birth (138).

Of the total deaths among infants, 2,053 or 22 per cent. took place in the first week of life and 1,353 or 15 per cent. in the age-period 1 to 4 weeks.

The mortality among infants who had not completed the first month of life was thus 3,406 or 37 per cent. of the total infant deaths. The number of deaths in the age groups 1 to 6 months and 6 to 12 months was 2,562 and 3,188 being respectively 28 and 35 per cent. of the total infant mortality.

Debility and prematurity play for the largest role in the causation of death in the first 4 weeks of life and during the remaining 11 months of infancy the largest proportion of deaths is from Respiratory Diseases.

In diagram IV, the mean monthly number of total deaths and the deaths among infants for each of the two years 1923 and 1924 is represented by 100 and with this is compared the actual rise and fall in each month of the two years in both the curves. The diagrams show an interesting correspondence in the rise of the two curves in the epidemic of malaria which occurred in October 1924 as well as in the epidemic of small-pox in the same year and in the outbreak of cholera in 1923. The immunity of infants to Plague is well illustrated by the failure of the curve for the infant death-rate to rise above the mean in the Plague season of 1923. The peak representing the mortality caused by Malaria among infants in October 1924 is rendered less striking by the occurrence of a heavy mortality from diarrhœal diseases in the months July and August.

Infant Mortality by Races.—Infant mortality among the principal castes are Hindus of other castes 415, Hindus low caste 468, Brahmins 637, Banias 372, Mussalmans 411, Indian Christian 465, Jews 210, Parsees 170, Anglo-Indians 195 and Europeans 204.

Among Europeans and Parsees the registration of births may be assumed to be carried out in almost all cases. Nevertheless their recorded rates exceed 170 as compared with rates of less than 100 in England in spite of the fact that the proportion of the poor and very poor in these communities is insignificant compared with that of most of the other communities in Bombay.

The high rates recorded in all communities suggest the presence in Bombay of some adverse factor in addition to the poverty and ignorance which are chiefly responsible for high rates in western countries. The added factor affecting all classes is probably malaria; another factor which can hardly fail to enhance the infant mortality among the more ignorant portions of the population is the practice of soothing babies by the administration of opium.

In Chowpati and Walkeshwar where the proportion of better class residents is high, the infantile death-rate, expressed as the number of deaths in infants under 1 year per 1,000 births, is comparatively low. But even so the lowest death-rate recorded in these sections was 225 for Walkeshwar whilst the rate for Chowpati was 245.

Rates exceeding 500 were recorded for Mandvi, Byculla, Sewri and Sion, the rate for the City as a whole being 419 deaths per 1,000 births of the total population.

The percentage of population occupying tenements of one room and under to the total number of occupants in all classes of tenements in the city by the Census of 1921 was 66. Of the 21,838 births registered in the year 13,853 or 63 per cent. occurred in families

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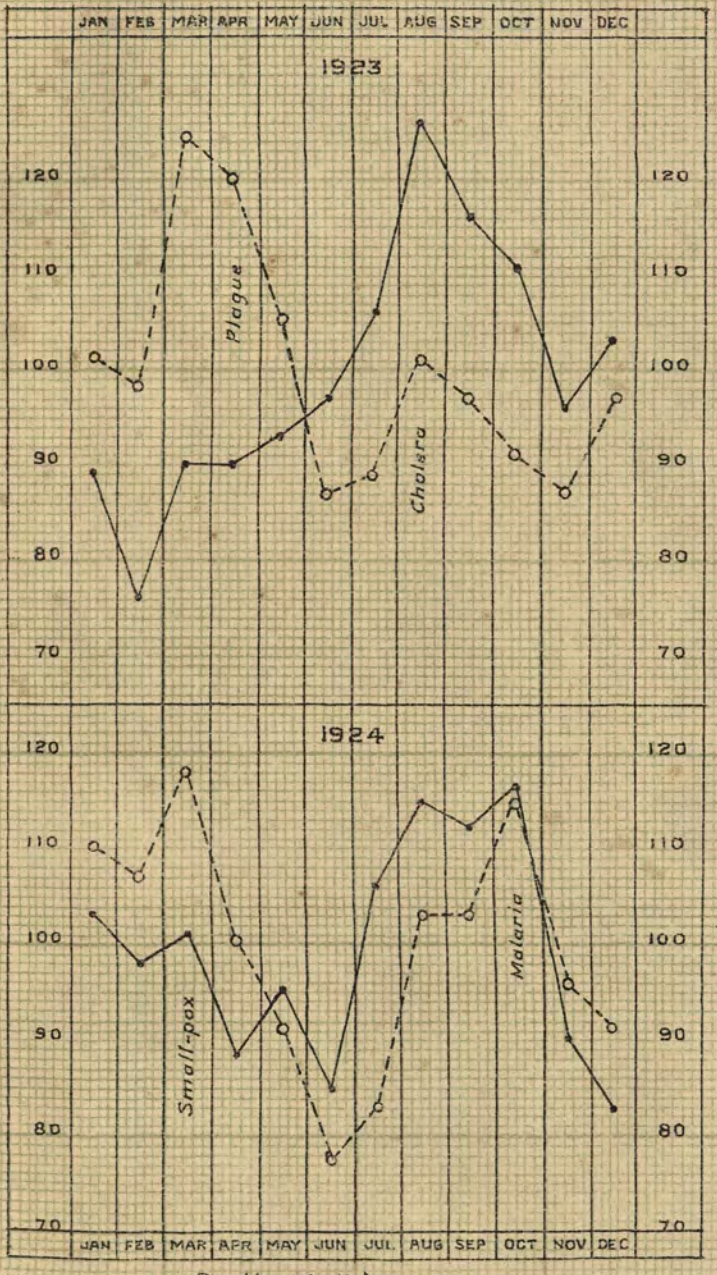
* *Note.*—The Executive Health Officer omits from discussion a large item of deaths attributable to Bombay, *viz.*, deaths amongst children whose mothers left the city only for confinement. As 37·8 per cent. of infant mortality occurs in the first month of life, Bombay thus receives back the highly selected of the age-group leaving to be borne by the mofussil the mortality of the younger infants—more liable to die.

CHART IV

Deviation from mean in monthly total deaths and Infant deaths. 1923 & 1924. in Bombay City.



living alone in a single room or sharing it with others, and the number of deaths in infants in this class of population was 7,716 or 84 per cent. of the total infant mortality.

The rate of deaths among infants in single-room tenements per 1,000 births in such tenements during the year was 557 against 524 in 1923 and that the proportion of deaths to births varies inversely as the number of rooms occupied by the parents. For 2-room residences the figure is 313; 3-room—271 and 4 or more room 125; road-side 518 and Hospitals 134.

Prevention of Infantile Mortality.—The work which is being done in Bombay for the reduction of infant mortality may be described under the following heads:—

(1) Visits by the Municipal District Nurses for the purpose of getting into touch with prospective mothers and for discovering cases of sickness especially among women and children and unvaccinated children; for inquiry into the condition of new-born infants; and for giving instruction by homely talks as to the care and rearing of children.

(2) Attendance on confinements.

(3) Provision of necessaries and comforts during the Lying-in period.

(4) Maternity Homes.

(5) Infant Milk Depôts.

(6) Infant Welfare Centres.

Summary of work.—During the year the 20 Municipal Nurses paid 54,543 visits to houses, chawls and huts (against 54,502 in 1923), inquired into 5,799 cases of ordinary sickness, and reported 433 cases of infectious diseases and 956 deaths in the female population of the City. These visits are doing much good and are welcomed and appreciated by those for whose benefit they are paid. They also attended 1,842 confinements (against 1914 in 1923) and verified the reports of the Birth Karkuns on 7,001 births, etc.

Of the total number of 23,659 births (including 1,821 still-births) registered in the City during the year, 12,601 or 53 per cent. were verified by the Municipal Nurses. Among the cases wherein enquiries were made, the proportion of births wholly unattended was 6·5 per cent. and that of confinements attended by unskilled women 51. The percentage of confinements attended by qualified midwives (other than municipal) was 7 and that of confinements attended by Municipal midwives was 15; the percentage of children born in Hospitals 20·8 shewed a decrease of 0·7.

The percentage of children born in healthy condition was 69 and that of children fed on breast was 74. The proportion of children dying within 30 days of birth was 12. The percentage of mothers who left home for work leaving their children to the care of others shows an increase of 4·7.

Relief to poor women during confinement in the shape of necessaries and comforts such as milk, bread, bed, blankets, charpoys and linen was continued during the year and dispensed in 448 cases.

The total number of women admitted in all the three Municipal Maternity Homes (total beds 51) during the year was 1,795. The number of cases confined in the three Homes was 1,626. Of the women confined, 477 were *primiparae.*

Infant Milk Depôts.—Two Infant Milk Depôts have been established, one at the Bellasis Road and the other at the Parel Road Maternity Home for distributing daily pure milk free or at a nominal price, for the benefit of children born in the Homes or under the supervision of the Municipal Nurses. 29,440 seers were distributed at the two Infant Milk Depôts during the year.

Voluntary Welfare Centres.—The Maternity and Child Welfare Scheme of the Infant Welfare Society has made much progress. At the end of the year the centres established numbered 9. The Society provides through them (1) advice and instruction to mothers as to infant management, (2) medical aid to infants and (3) a staff of trained nurses for visiting the homes of infants. Each centre is in charge of a Supervisor who is a trained nurse and a midwife. She supervises the milk distribution and assists the Lady Doctor in charge in attending on babies and advising mothers on infant management. There is also a Health Visitor, who is a trained nurse midwife attached to each Centre. She visits the babies in the district and persuades their mothers to take advantage of the Infant Welfare Scheme.

The following is a short summary from the Report of the Health Officer, Surat Municipality, on "Infant Mortality": -

"One fact is certain that infant mortality is gradually decreasing in this city for the last three years. The rate is now reduced from 385·5 (in 1923) to 349·9 per 1,000 of infants born and registered. Much of the reduction is probably only apparent, *i.e.*, due to better birth registration but it should still be an encouraging factor in the Baby Week movement which proved very popular, has certainly roused the feelings of the public towards child welfare and may have had effect on the infant mortality figures.

It will be noted that almost 35 per cent. of the total deaths in this city are amongst infants."

Steps taken for prevention of Infant Mortality :—

"Samples of milk were taken from different localities of the city and negotiations were made with the milk sellers about improvement in the method of selling milk in the light of Food Adulteration Act, but even after great efforts they did not come to terms with the Health Department and the only remedy now left open is the wholesale prosecution of those who sell skimmed or adulterated milk in contravention to the sections of the Food Adulteration Act, and this is being done now."

25. *Deaths by Castes or classes.*—Deaths by Classes and by sex are recorded in Annual Form No. V, Appendix IV.

26. *Deaths according to Causes.*—The following table shews the number of deaths in 1924 and the ratio per 1,000 of population arranged according to causes and contrasted with the figures for 1923 and with the mean for the preceding five years :—

	1924.		1923.		Mean for five years.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Cholera	8,236	·43	9,221	·48	13,822	·70
Small-pox	11,152	·58	2,811	·15	3,104	·16
Plague	9,214	·48	33,741	1·76	14,055	·73
Fever	214,563	11·20	196,231	10·24	232,214	12·00
Dysentery and Diarrhœa ..	28,926	1·51	22,238	1·16	27,673	1·43
Respiratory Diseases ..	91,103	4·75	84,334	4·40	91,094	4·71
Injuries	7,374	·38	7,514	·39	7,766	·40
Other Causes	159,008	8·30	140,154	7·31	139,400	7·21
All Causes	529,576	27·63	496,244	25·89	529,128	27·34

There is an increase in mortality under all disease headings except plague and cholera.

Comments on the causes of deaths are made in Section VI.

Contrast graphs of the monthly incidence of deaths under the chief epidemic and general causes for the year under report compared with 1923 and the mean of 1911-1920 are shewn in two charts V and VII.

27. *Cantonments in Native States.*—The total number of births in cantonments situated in Native States during the year 1924 was 2,103 against 2,266 in 1923 giving a birth-rate of 18·88 per 1,000 of the population against 20·34 for the previous year. There were 2,166 deaths

equal to a ratio of 19·45 against 2,271 and a ratio of 20·38. The statistics are tabulated below:—

Statement shewing the names of Cantonments with population and deaths from diseases for the year 1924.

Cantonments.	Population according to Census of 1921.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	Number of deaths from					
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery.	Respiratory.
Aden Municipal Limits ..	44,000	70	629	898	20·41	0	1	0	351	262	156
Purely Civil Population of Cantonments ..	650	7·44	87·37	9	13·85	0	0	0	19	1	0
Baroda ..	2,934	1·09	2934	39	13·29	0	1	0	16	0	0
Deesa ..	5,449	3	1816	104	19·08	0	0	0	54	2	0
Mhow ..	31,774	6·5	4882	298	9·39	1	2	1	209	10	54
Nasirabad ..	15,959	8	1,994·7	533	33·40	0	1	0	124	16	60
Neemuch ..	10,490	4·52	2,539	220	20·97	0	0	0	116	7	0
Rajkot ..	175	·50	350	2	11·43	0	0	0	2	0	0
Total ..	111,391	10,105	1003·3	2,103	18·88	1	5	1	891	298	270

Cantonments.	Number of deaths from—*contd.*			Ratio of deaths per 1,000 population.								
	Injuries.	Other Causes.	All Causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery.	Respiratory.	Injuries.	Other causes.	All Causes.
Aden Municipal Limits ..	15	382	1,167	..	·02	..	7·98	5·95	3·55	·34	8·68	26·52
Purely Civil Population of Cantonments ..	0	5	25	..	..	..	29·23	1·54	..	..	7·69	38·46
Baroda ..	0	5	22	..	·34	..	5·45	..	..	..	1·70	7·49
Deesa ..	0	25	81	..	..	..	9·91	·37	..	..	4·59	14·87
Mhow ..	3	93	373	·03	·06	·03	6·59	·32	1·70	·09	2·93	11·75
Nasirabad ..	3	117	321	..	·06	..	7·77	1·00	3·76	·19	7·33	20·11
Neemuch ..	3	49	175	..	..	..	11·06	·67	..	·28	4·67	16·68
Rajkot ..	0	0	2	..	..	..	11·43	..	..	..	..	11·43
Total ..	24	676	2,166	·01	·04	·01	8·00	2·68	2·42	·22	6·07	19·45

28. *Rainfall in 1924, June.*—The monsoon opened very unsatisfactorily. It failed to extend into the interior of the Presidency and the early crop districts suffered materially. In the rice tracts of the Konkan, the rainfall was much below normal but was just sufficient for agricultural operations to proceed.

July brought good and general rain throughout the Konkan, Thana, Kolaba, Belgaum and in most parts of Guzerat, on the fringe of the Western Ghats and in Khandesh but elsewhere, *i.e.*, in most parts of the Deccan and Karnatak the rainfall was below normal. Surat and Broach which were doing well had very little rain when it was needed for transplantation but in general crops were in good condition. In Ahmednagar and Ahmedabad the food crops were being parched into uselessness and only about 1/8th of the normal area was under seed.

In the latter end of August and in September, there was good and general rain throughout the Presidency. The amount proved even excessive in parts of Guzerat, Khandesh and Ahmednagar in the Deccan and in coastal tracts in North Kanara in the Konkan.

October shewed a rainfall well below the average in most places notably so in Ahmedabad, North Guzerat generally and Kathiawar. In a few areas including Surat, Panch Mahals and Khandesh, the amount was rather in excess.

In Sind climatic conditions were peculiarly unfavourable to economic and health conditions.

The Indus river rose early and to a high though not unprecedented level. Excessive floods due to breeches in the river and heavy rainfall made agricultural operations impossible in large tracts and even forced the people to temporarily emigrate. A heavy incidence of sickness, chiefly malaria, and severe agricultural depression were the consequences. Moreover rainfall, which plays a minor but important part in agriculture and in the raising of fodder in Sind, held off for some time and later on precipitated itself in unusual quantities. Distress caused by breeches and heavy rainfall was keenly felt in parts of Karachi District and parts of Nawabshah District. Relief funds were started for the people who were rendered homeless and Government spent large sums in relief to these people and in free distribution of quinine which mitigated the results to be expected. A high rate of morbidity rather than of mortality is the history of the year more especially in its latter part in the Province of Sind.

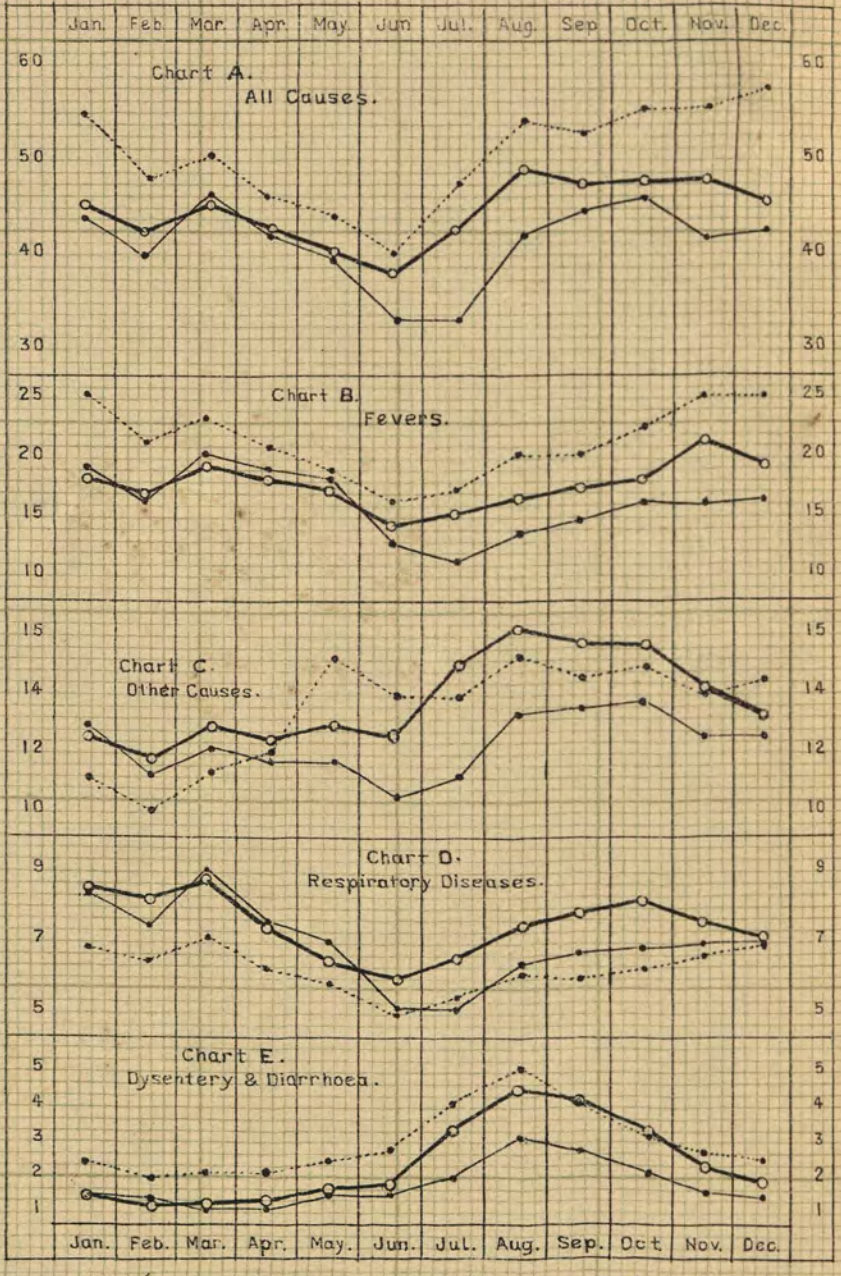
29. Prices of food grains were generally higher than those of the last year in the Presidency but not to such an extent as to cause hardship to the consumers.

Chart V.

MONTHLY INCIDENCE OF DEATHS FROM CHIEF CAUSES.

1924 o—o. 1923 •—•. Previous average *·····*

Scale figures represent deaths in thousands.



* 1918 (Influenza year) omitted in the average of Charts A, B & D.

SECTION VI.

HISTORY OF CHIEF DISEASES.

General Remarks.

30. The health history of the Presidency from 1918, the year of pandemic Influenza, judged by the total mortality figures, is one of steady progress up to 1922, the year of record low death-rate (23·61) and thereafter of gradual return to the low standard that normally obtained. Thus the death-rate figure for 1923—25·89 and for the year under report 27·63 indicate the return to the 1911-15 mean of 27·56. If we look closely into the records of the year now under report, we find that the set-back is mainly due to two recurrent death factors, *viz.*, an unusually severe small-pox epidemic—an all-India feature of the year, and the re-appearance, after a seven-year interval, of fulminant malaria in Sind. Neither is indicative of a reduction from the none too high standard of general health that had been reached in 1922. The further increase in births for the year suggests in itself improvement in conditions but it brought along with it more than the usual increase ininfant deaths that accompanies. Small-pox and Measles epidemics (continued from preceding year) are accountable for this added excess. Sixty-five per cent. of the increase in total mortality over last year's total is in deaths of infants. The year proved unhealthy also for the other extreme of life—age sixty and over—whereas forthe age—periods between five and sixty a lower rate of death than inthe year preceding was recorded.

The increase appears in nearly all of the general headings; under Bowel diseases, Respiratory diseases and other causes in particular. Cholera deaths are less than the previous year but the outstanding favourable feature of 1924 is the great reductionin severity and mortality of Plague.

The following paragraphs deal with the deaths under the different headings and further comparison is shewn in the table in paragraph 26 and in graphic form in the Charts inserted in this Report.

Fevers.

31. 214,563 deaths (111,369 males and 103,194 females) were recorded as due to Fevers against 196,231 in 1923 and a quinquennial mean of 232,214. The death-rate was 11·20 against 10·24 in 1923 and a quinquennial mean of 12·00.

It is to be noted that registrars return as fever many deaths properly belonging to other headings including even sporadic and early cases of plague and influenza. The annual mortality recorded under this

comprehensive heading in previous years is given in the following table :—

Year.	Fever deaths.	Rate per mille.	Year.	Fever deaths.	Rate per mille.
1901—1910 mean ..	258,497	14·00	1920 ..	266,092	13·58
1911—1915 mean ..	247,926	12·66	1921 ..	226,100	11·80
1916 ..	262,401	13·40	1922 ..	197,888	10·33
1917 ..	298,919	15.26	1923 ..	196,231	10·24
1918 ..	1,284,013	65·55	1924 ..	214,563	11·20
1919 ..	274,759	14·03			

The distribution of fever deaths is shewn in Annual Form No. IX.

In the Presidency proper the Western, Central and Southern Registration Districts shew an increase of 4,276, 2,089 and 2,580 fever deaths, respectively, over the figures for previous year while there is a decrease in Guzarat from 34,306 to 30,955. The highest death-rates were recorded in East Khandesh (16·10), Thana (15·48), Kolaba (15·28), Sholapur (13·94), West Khandesh (13·09), and Broach (13·01). In Sind, 44,024 or 76 per cent. of the total deaths were recorded as fever against 31,338 in 1923 and 41,223 the mean of previous five years. The district death-rates for fever in that province varied from over 16 in Sukkur and Nawabshah to 9·25 in Karachi.

The urban death-rate was 6·98 and the rural 12·22 as compared with 6·78 and 11·08, respectively, in 1923. The highest urban death-rates from fevers in the Presidency proper were recorded in Pandarpur (32·37), Barsi (27·45), Yeola (21·49), Nadiad (18·99), Parola (18·55) and Ankleshwar (18·20) and in Sind Ratodero (32·52) and Garhi-Yasin (20·39).

Details of sub-headings of deaths from fevers are as follows :—

32. *Malaria.*—49,821 deaths against 34,957 in 1923, equal to a death-rate of 2·60 against 1·82. The figures are : for the Southern Registration District 8,113 ; Central 6,771 ; Western 1,416 ; Guzerat 572 and Sind 32,484 (or 74 per cent. of the total fever deaths) as compared with 7,028 ; 6,306 ; 185 ; 502, and 20,569, respectively, in 1923. 465 deaths were registered in Bombay City against 367 in 1923.

The death-rate from malaria for the Presidency as a whole was 2·60 against 1·83 in 1923. Excluding Sind, the rate was 1·09 against 0·90 in 1923. The urban and rural death-rates were 0·90 and 3·01, respectively, against 0·86 and 2·05 in 1923.

In Sind the features associated with previous years of epidemic malaria (*e.g.*, 1917) were present. Thus : (1) the level of the Indus remained at or above "Fair Irrigation Level" (13′ on the gauge at Sukkur) for fifty days as compared with thirty days the maximum for several years a level of 16′—6″ was maintained for two days ; (2) there was consequent flooding of large tracts of country in all districts; (3) unusually heavy rains. With regard to rainfall, the total excess does not amount to much and for some of the monsoon months the fall was below normal in most districts, but there was heavy precipitation for short periods in July

and more generally in September. In the rainfall tables this is shewn by the September figures 6·09, 4·80, 2·90 and 3·18 inches for Hyderabad, Nawabshah, Karachi and Larkana districts, respectively, as compared with their normals for that month—0·93, 0·99, 0·70 and 1·18.

In Sukkur, on the other hand, rainfall was below normal from May to the end of the year and no excess was recorded by any of its rain-gauges at any time as in Upper Sind Frontier also the rain records do not shew a great degree of abnormality. For Sukkur, therefore flooding (unaided by rainfall) was the known epidemic factor and it is doubtful whether rainfall was to any extent a factor in Thar and Parkar.

Sukkur was the district of greatest severity shewing a rural death-rate from malaria of 14·77. Nawabshah was next with a rate 12·96 and the other district rural rates were Thar and Parkar 11·28; Larkana 10·53; Upper Sind Frontier 10·06; Hyderabad 9·28 and Karachi 9·22—all roughly one and a half times in the death incidence of 1923. The highest urban death-rates were Garhi-Yasin (17·89), Kambar (14·84), Larkana (12·48), Rohri (12·42) and Sehwan (12·20). Shikarpur and Tatta recorded only 1·38, and 1·65, respectively, and no malaria deaths were returned from Sukkur and Jacobabad towns.

In the Presidency, Poona (4·70), Kanara (4·47), Dharwar (3·57) and Ahmednagar (3·11) districts returned the highest rural rates and the rates for Kapadvanj (13.11), Jambusar (10·86) and Khed (4·99) were the highest for towns.

33. *Anti-Malarial Measures.*—For the treatment of sufferers, 8 Subordinate Medical Service Officers were appointed on special duty—3 for Karachi, 2 for Sukkur, 2 for Nawabshah and 1 for Hyderabad District.

Distribution of Quinine.—On the appearance of the conditions favourable to epidemic in Sind, the likelihood of an outbreak was brought to the notice of Government. Supplementary grants were placed at my disposal and every effort was made to have quinine available for all sufferers from Malaria. Agencies additional to the Revenue Department, *viz.*, Local bodies, Educational, Public Health and Co-operative Credit Societies, were utilized for the distribution of free quinine.

The details of expenditure sanctioned by Government are as follows :—

	Rs.
(1) Free distribution of quinine sulphate ..	75,000
(2) Quinine Hydro-chloride "treatments" at a reduced price	32,200
(3) Sale of twin five grain packets at post offices ..	43,000

Quinine for No. (3) and the greater part of (1) was prepared and issued by the Jail Department from stock received from Madras at the average cost of Rs. 26-2 per lb. landed at Yeravda. The remaining issues were effected through the Medical Stores, Bombay. The bulk

of items (1) and (2) went to Sind. The largest free issues in the Presidency proper was to Kanara (Rs. 4,039.) Of item (2) 4,005 parcels of quinine treatments were issued, cost at Government of India rate (Rs. 28,741); Price recovered from the Officers of Departments supplied and credited to Government Rs. 16,020.

The publication in this Report of details of local expenditure on anti-malarial measures is discontinued (G.R., G.D., No. 3819 of 23rd Feb. 1925) but information for Bombay Municipality at hand is as follows:—

Rs. 1,04,084 including Rs. 1,208 sanctioned by Government were spent on anti-malarial measures. Of this Rs. 65,311 were establishment charges, Rs. 1,094 for disinfectants, Rs. 11,497 on contingencies, Rs. 3,526 for filling in or providing concrete covers to wells, tanks, etc. Other measures included in the above sum is Rs. 22,656 for new pattern iron storm water grating and frames.

In Bombay City the Malaria Branch was re-opened on 8th January 1923 and anti-malarial measures during the year were carried out by a staff consisting of 5 Medical Inspectors, 38 Sub-Inspectors, 4 muccadams and 76 coolies, under the direct control of the Second Senior Assistant Health Officer (Malaria).

The following sample of comments received from district officers may be given :—

The Collector of Larkana reports.—"The drug has now grown very popular among the masses, both as an effective, preventive and a cure for malarial fever. Its use was freely resorted to during the year under report owing to the prevalence of widespread malaria due to floods. Many Zamindars buy their own supply for their cultivators since the amount distributed through the Official Agencies bears only a minute proportion to the needs of the country."

The Collector of Sukkur reports in similar terms.

The President, District Local Board, Kolaba, states :—

"..... Even remote villages in the district are taking advantage of quinine for prevention of malaria owing to its free distribution. As regards the experience in schools (distribution through taluka head-masters) it is reported by medical officers that most of the children inspected and treated were completely cured of their enlarged spleens."

The Collector of Thana reports.—"On the whole the general aversion towards quinine is now disappearing and there is a visible tendency to ask for the drug as its prophylactic value is being realised by the people. A regular campaign through the Police Patels and other suitable agencies will help more in checking malaria."

Mr. Macmillan, I.C.S., Collector of Surat, who takes very special interest in this matter reports :—"A large amount of quinine for free distribution was available this year (42½ lbs.) and it has, I think, been utilized to good effect.

"The incidence of malaria throughout the district was much lower than last year, but I was informed that in Mandvi town the improvement was exceptionally great. A fairly vigorous campaign was carried on in Surat by the Municipal Health Department assisted by the Sanitary Association. There was a marked diminution of the mosquito nuisance, but in view of the general reduction in malaria this year, it is difficult to say whether the drainage and oiling of stagnant water, and the publishing of posters, leaflets, and newspaper articles achieved any definite results."

"I am of opinion that in most parts of this district, it would not be difficult to make the most malarious spots at least as healthy as the less malarious and that with an intelligent system of propaganda it would not be difficult to get the people to adopt treatment by quinine generally."

"In Surat City, this year, the campaign regarding preventive measures was initiated by me. I sent notes on the point on which I thought information should be given. On that basis the Health Officer in consultation with the Civil Surgeon prepared rough drafts of leaflets of two types, posters and handbills. In addition to this, articles were supplied to the local press explaining the measures being taken by the municipality and measures recommended to private persons, and in particular areas a few private medical practitioners undertook to do personal propaganda work."

34. *Enteric Fever.*—3,204 of the "Fever" deaths were registered as due to Enteric, against 2,272 in 1923. The accuracy of death-figures allocated to this sub-head especially in rural areas is not to be relied on. The figures are for the Southern Registration District 1,576; Sind 890; Central 541; Guzerat 27 and Western 10. 160 deaths were recorded in Bombay City against 130 in the preceding year.

The connection of this disease with night-soil pollution was established by the Assistant Directors after study of the locality and the figures of incidence in different parts of the town concerned, *e.g.*, in the case of Wai the storm washings of the night-soil depôt was found to pollute indirectly, the stream that constitutes part of the water-supply. In Shikarpur the incidence was traced to the pollution of certain wells within soakage distance of an open sewer. In Mirpurkhas the source was probably similar.

35. *Measles.*—The epidemic of measles of the preceding year continued its course with abated activity—4,233 deaths against 6,504. The disease in Guzerat where it was most virulent in 1923 may be said to have subsided. About 80 per cent. of the deaths were amongst infants and children under 5 and less than 3 per cent. in the age-groups over 10. The Central Registration District was the heaviest sufferer, with 1,152 deaths and Sind recorded 888 or double the number in 1923. The Assistant Director of Public Health, Sind, remarks :—

"The cases of measles in Karachi and Hyderabad as was noted also in Ahmedabad seem to group round schools. In Sind, there is noticeable simultaneity in measles and small-pox. The precautionary measures to be taken in the schools in the case of these diseases were discussed with the Municipal President and Health Officers and as a result, a system of recording of absentees from school has been adopted in Karachi."

36. *Relapsing Fever.*—Only 24 deaths were reported from this cause. The distribution of these deaths is shewn in Appendix IV [Annual Form No. VI (*a*)], *viz.*, 20 deaths from Bijapur District, 3 from Bombay City and 1 from Karachi Cantonment. A full history of this disease appeared in last year's report. Panch Mahals, the site of the 1923 outbreak was free from any unusual sickness suggestive of Relapsing Fever. Seven sporadic cases were reported from Shivrajpur and Godhra town in January-February. In Niralkeri, a village of Bijapur District, of 647 population, 20 "Enteric" deaths were returned in February and the Civil Surgeon deputed the Medical Officer, Bagalkot Dispensary, in March to enquire into this unusual mortality. The Assistant Director also visited the village. The conclusion arrived at was that the outbreak had been one of Relapsing Fever. Fortunately no further spread of the disease followed but the occurrence indicates the necessity for more prompt notification of unusual outbreaks of disease in rural areas generally. In view of the serious outbreak in the Punjab, the Assistant Director of Public Health, Sind, advised local authorities to be on the lookout and some Medical Officers were trained specially in the method of treatment. Only one death from the disease occurred.

37. *Kala Azar.*—This disease is practically unknown in this Presidency. No cases or deaths were reported.

Influenza.

38. The following table shews the deaths as estimated from Influenza for the first two years since its appearance and as registered thereafter :—

Year.	No. of deaths.	Year.	No. of deaths.
1918	1,041,481	1922	1,222
1919	39,786	1923	991
1920	16,690	1924	578
1921	3,679		

It will be seen that the steady diminution is sustained. The Assistant Directors' enquiries shew that the disease was prevalent in several unreported centres and that the chief infect on was in rural areas. In Makhjan, a village of 2,200 in Ratnagiri, 214 males and 318 females or one-fourth of the population were attacked, but all recovered. Mortality was higher in outbreaks in the Southern Registration District than elsewhere ; Malholi, a village in Hukeri taluka, reported 15 cases, all fatal ; Karajgi Taluka and Ranebennur town registered 51 and 31 deaths, respectively and Bagewadi nd Hungund talukas and Ilkal town – 44, 28 and 20. In Sind, Thar and Parkar recorded 58 deaths and Larkana 20. Some districts, *e.g.*, Sholapur remained free from infection. Bombay City recorded 118 (or less than half the death figure of the preceding year) over 70 per cent. of which were of males. The Executive Health Officer reports :– "The type of the disease was mainly respiratory but some cases of the abdominal type were seen. The disease was prev lent in mild form in all Wards of the City. Leaflets ins.ruct ng th ·ublic what to do for the prevention of disease were distributed throughout the City and they were asked to avail themselves of the medical relief afforded at the Municipal Dispensaries and Hospitals".

Respiratory Diseases.

39. 91,103 is the total number of deaths recorded (49,642 males and 41,461 females) as due to Respiratory Diseases against 84,334 in 1923 and 87,501 the decennial mean. The death rate was 4·75 against 4·40 in 1923 and a quinquennial mean of 4·71. The mortality list for previous years is as follows :—

Year.	Deaths.	Rate.	Year.	Deaths.	Rate.
1901–1910 mean ..	57,723	3·12	1920 ..	96,486	4·93
1911–1915 ,, ..	62,181	3·17	1921 ..	93,336	4·87
1916 ..	79,882	4·08	1922 ..	82,682	4·31
1917 ..	90,667	4·63	1923 ..	84,334	4·40
1918 ..	119,680	6·11	1924 ..	91,103	4·75
1919 ..	98,633	5·04			

The Guzerat returns again shew the highest rates—Surat 10·27, Kaira 9·32, Broach 9·23 and Ahmedabad 8·10. The increase over the years preceding the Influenza pandemic (1918) is attributed by the Assistant irDector to improvement in registration of deaths as regards cause. This

explanation is supported by the fact that total of deaths from all causes remains below the average of the earlier period.

The Presidency rate is exceeded also by Poona (6·44), and Ahmednagar (5·44) districts. The urban rate (9·43) greatly exceeds the rural (3·62) owing to the reason just stated and also because of the greater facility for spread of these diseases. Poona (16·80), Kirkee, Ahmedabad (15·51) Bombay (13·72), Surat and Hyderabad are amongst the highest for towns.

40. *Phthisis.*—18,469 deaths from this cause were registered, equivalent to a death-rate of 0·96, for the Presidency as a whole. The corresponding figures for 1923 were 16,244 and 0·84 respectively. By Registration Districts, the total figures were Central 5 601, Guzerat 4,793, Southern 3,008, Western 2,610 and Sind 1,048 which is the same order as in 1923 : 5,287, 4,511, 2,325, 2,185 and 733 and in the two years preceding. In Bombay City, Phthisis deaths were 1,409 equal to a death-rate of 1·33 compared with 1,203 or a death-rate of 1·05 in the previous year.

The urban death-rate was 1·69 and the rural 0·79 against 1·59 and 0·66 in the previous year. Poona City (4·09), Ahmedabad (3·50) Gadag-Bettigeri (2·96) and Hyderabad (2·91) shew the highest city figures and for districts Ratnagiri (2·41), Kolaba (1·93), Kaira (1·92), and Ahmedabad (1·58).

The Assistant Director of Public Health, Sind, reports :—

"The bad housing conditions and insanitary habits of the people are responsible for the prevalence of this disease. Inquiries by the Health Department in Karachi through their Tuberculosis Officer show that this disease prevails to a much larger extent than is apparent from the recorded figures. In Shikarpur town one medical practitioner asserts that almost every other house or Haveli contains a case of tuberculosis of lungs. The activities of the health visitors (two in number) attached to the Tuberculosis Institution in Karachi have been directed towards finding out cases and persuading them to take treatment and in giving general hygienic advice so as to protect from further spread of the disease. Work on these lines and institutions like that of Karachi in all the cities in Sind are badly needed."

"*Tuberculosis Institution.*— The Anti-Tuberculosis Dispensary in Karachi City is doing good work. During the year under report, 1,068 patients attended of whom 710 were found suffering from tuberculosis. In all 22,581 houses were visited by the Lady Health Visitors and 517 cases were detected by them. 3,758 houses were visited by the nurse and 1,993 visits were paid by the Medical Officer to see patients suffering from tuberculosis. 41 cases were reported by private practitioners."

41. *Pneumonia.*—19,482 deaths were registered equivalent to a death-rate of 1·02 per mille for the Presidency as a whole. The corresponding figures for 1923 were 17,425 and 0·90. A study of the figures by Registration Districts shews that as in the case of the major heading, Guzerat with 3,521 deaths against 3 850 in 1923 again contributed the highest proportion as it has done annually, since pneumonia was classified as a separate sub-head in 1919. Sind with 3,472 and the Central Registration District 1,930 deaths come next, their 1923 totals being 2,053 and 1,466. The Western and Southern Registration Districts returned 1,477 and 1,155 respectively. Bombay City registered 9,717 pneumonia deaths against 9,539 in 1923.

The urban death-rate was 3·93 and the rural 0·31 against 3·64 and 0·24 respectively in 1923. Amongst the highest urban death-rates

were these of Poona (10·98), Kirkee (9·89), Hyderabad (7·25) and Surat (5·38) and the highest rates for rural areas were recorded in the districts of Thar and Parkar (2·35) and Surat (2·15).

The following is extracted from the report of the Health Officer, Surat Municipality, on "Respiratory Diseases":—

"Deaths from pneumonia were 632, as compared with 358 in the year 1923 when there was a scarcity of rains. Deaths from pneumonia in the year 1922 were 512. For the very severe prevalence of pneumonia during two of the three years, no specific reason can be given except the heavy rains. Deaths from phthisis were 337 as compared with 384 in the year 1923."

".....This means that the diseases of the respiratoy system are the most common in this city. The point was discussed at the meeting of the Surat Medical Union and some Doctors stated that majority of the deaths from phthisis and other respiratory diseases are from the cases imported from Bombay; in order to find the true state of affairs, special inquiry was made from June to December about the phthisis deaths and it was found that during these 7 months, there were totally 158 deaths from phthisis and out of these only 35 were the deaths amongst cases imported from Bombay. But even if we deduct 22 per cent. from the total deaths from phthisis figure, it leaves us 263 indigenous deaths from phthisis and even this number keeps phthisis as one of the four principal diseases in the city. From this inquiry it can be safely inferred that phthisis and other allied diseases have something to do with the sanitary and industrial conditions of this city."

Cholera.

42. The number of deaths recorded from Cholera was 8,236 against 9,221 in 1923 and 13·294 the decennial mean. The death-rate was 0·43 against 0·48 in 1923, a decennial mean 0·68 and a quinquennial mean 0·71. The urban and rural death-rates for the Presidency as a whole were 0·24 and 0·47 respectively.

The following table gives the deaths recorded since 1900 :—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1900 ..	163,000	1909 ..	28,714	1917 ..	17,003
1901 ..	13,600	1910 ..	3,694	1918 ..	8,834
1902 ..	3,229	1911 ..	5,817	1919 ..	51,551
1903 ..	1,825	1912 ..	64,505	1920 ..	2,047
1904 ..	13,156	1913 ..	5,134	1921 ..	3,521
1905 ..	5,396	1914 ..	17,779	1922 ..	2,768
1906 ..	46,119	1915 ..	377	1923 ..	9,221
1907 ..	7,656	1916 ..	19,841	1924 ..	8,236
1908 ..	1,759				

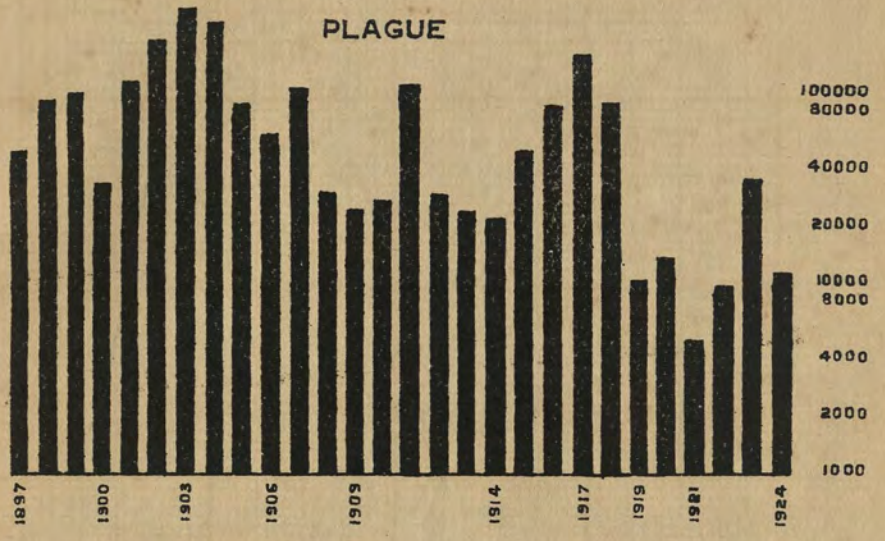
In the Presidency proper 16 out of 20 districts were infected. Sind, which escaped the epidemic of the previous year, reported deaths from all its 7 districts. Details for all districts are given in Annual Form No. VII and Charts VI and VII shew the progress of the disease.

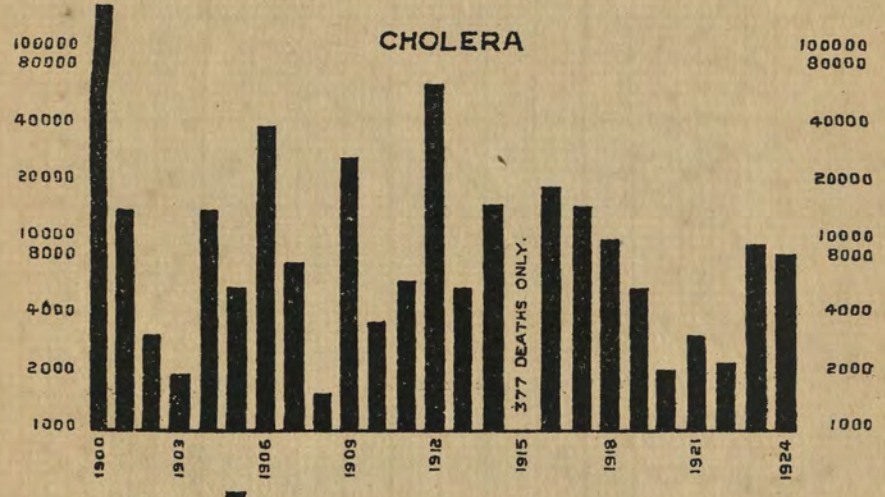
Of the total deaths, less than one-fourth were recorded during the first half of the year and these were mostly in Dharwar and Bijapur Districts. The epidemic was at its worst during the months of July and August. Infection was to a great extent localised within the districts of East Khandesh, Nasik, Sholapur, Dharwar and Bijapur.

172 Registration circles with 1,119 towns and villages were affected,

CHART VI- ANNUAL INCIDENCE OF DEATHS FROM EPIDEMIC DISEASES.

Scale figures represent actual deaths. For Plague & Cholera, figures at their log: intervals and only those above 1000 are shown.





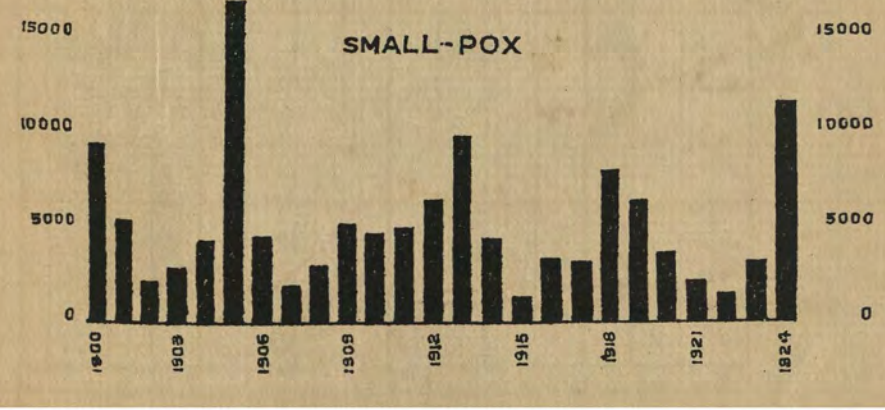
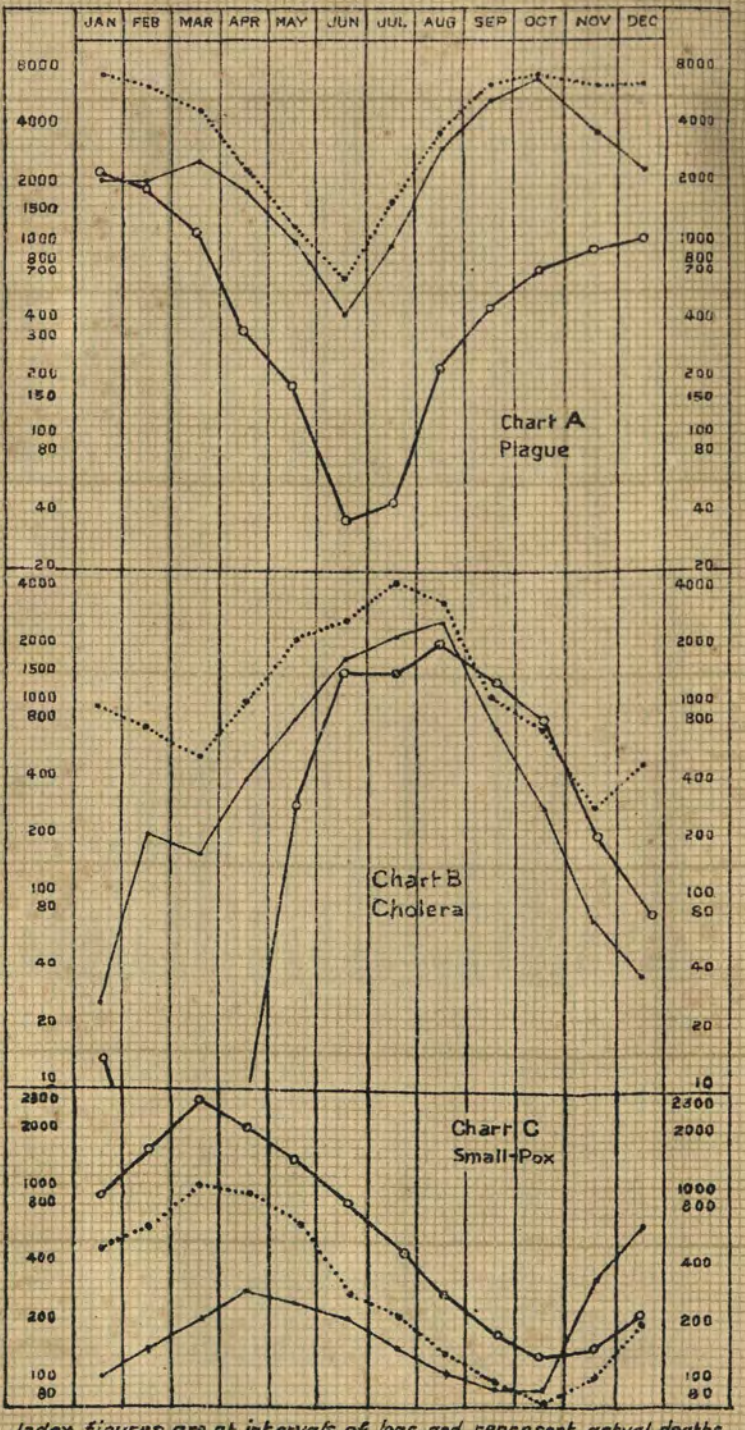


CHART VII

MONTHLY INCIDENCE OF DEATHS FROM EPIDEMIC DISEASES

1924 o——o. 1923 ——. 1911–20 MEAN .....



Index figures are at intervals of logs. and represent actual deaths.

Bombay City returned 34 deaths against 186 in 1923.

43. To take the registration districts separately, their history is as follows :—

The heaviest incidence of cholera was in the Southern Registration District. The first cases were reported on the 21st April from Gadag and the total of deaths for the year reached 3,257 against 754 in 1923 in the whole Registration District. Dharwar and Bijapur districts suffered heavily returning 1,648 and 1,352 deaths, from 161 and 183 villages respectively. Among rural circles, Kod, Ranebennur, Mundargi in Dharwar District and Hungund, Bagewadi and Badami in the Bijapur District were the worst affected while of town circles Gadag, Ranebennur and Ilkal and Guledgud, a pilgrim centre, suffered heaviest.

On investigation it was found that the first case was a Mahar who died on 16th April. He had been to a marriage ceremony in Betigeri, which was attended by people from the Nizam's Dominions where cholera was prevalent. The Tolad Swami Fair at Gadag followed on 19th April ; water was scarce and a well in the Criminal Tribes Settlement was much in demand and appears to have been infected by Chhapparbands from Betigeri.

Infection from the Nizam's and Madras areas was very soon after, independently imported into other villages, Hamgi in Mundargi peta infected from Bellary on 7th May being the first.

Bijapur District got infected also in mid-May more from the Nizam's and the Mudhol State than from Dharwar.

Belgaum District reported 250 deaths in all, from 40 villages, Gokak area being the most active focus. Athani and Gokak rural circles and Gokak town were badly infected returning 80, 81 and 26 deaths respectively. In the Belgaum District, the first report of infection was on 18th June in a village (Ankalgudketar) in Hukeri taluka that derives its water-supply from a nulla which became contaminated after early rains. From here the infection was carried to Pachhapur, a railway station situated on the Markandye river and it operated as a distributor of infection but there was cholera also in the Native States, north of the district and villages in Athani Taluka were infected by that route. The epidemic in Belgaum District was mild up to the last week of July and reached its height in September and shewed a decrease thereafter. Kanara District was practically free returning only 7 deaths in December from three villages.

The Western Registration District recorded 2,948 deaths from cholera against 1,298 in 1923 and 5,232 the quinquennial average. One of its Collectorates, East Khandesh, was the most severely affected of all, the disease appeared in 216 villages and extended over 13 rural and 9 town circles and lasted from May 20th till the middle of October. 5,378 cases and 2,027 deaths were reported.

In Nasik District, also cholera was present throughout the year affecting 10 rural and 4 town circles and 140 villages and causing 643 deaths in 1,481 reported attacks.

West Khandesh reported 507 cases and 189 deaths spread over the months from April—November. In the remaining districts the epidemic appeared later in the year, Kolaba being the worst sufferer with 79 deaths between August and the end of the year.

The Assistant Director of Public Health gives the following history of the epidemic :—"There were some cases of cholera in Nasik Taluka in January 1924 and there was 1 attack and 1 death from cholera at Dhulia on 24th March 1924. First the Purna river brought the infection from the Berars to East Khandesh district through Malkapur taluka; the Tapti river also getting contaminated spread the infection to the greater part of the district. The infection spread from the villages situated on the banks of these rivers to other villages through human intercourse and the delayed monsoon and scanty rainfall in the early part were responsible for the high incidence. Both in East Khandesh and Nasik districts cholera spread along the course of the main rivers and the villages were infected in that order. Thus of 19 villages infected in East Khandesh situated on the banks of the Tapti, in all 'river water' was reported as the source of infection by the local authorities. Five villages in Edlabad peta are on the banks of the Purna ; four others in East Khandesh are on Girna or Waghoor rivers. Similarly in Nasik the trace of infection followed the Mosam, Aram and Godavari. Kolaba secured its infection from Bombay through its sea-ports. Returning pilgrims from Pandharpur were reported to be the source in two villages of Baglan."

In the Central Registration District, 1,532 deaths from cholera were recorded against 6,963 in 1923. The greatest mortality occurred in the Sholapur, Satara and Ahmednagar Collectorates, which returned 587, 396 and 386 deaths respectively. 255 villages reported cases. Poona from January and Sholapur from May were the only districts returning cases in the first half of the year. The epidemic was at its height during the months of September and October.

In Ahmednagar district, 11 talukas were infected, Jamkhed being the worst. In Kopergaon taluka, Kumbhori village began to return cases in July, the source of infection being local. Seven villages quickly followed in Jamkhed peta, 12 villages were affected and the total of cases and deaths was 276 and 127 respectively. The infection in all was indigenous. 27 deaths were reported in Shrigonda taluka though only one village was affected and the source of infection was local.

Generally the origin of outbreak was stated to be local but the Nizam's Dominions and Pandharpur Fair are named the sources of the disease in Pathardi villages and for Rahuri and subsequently Sangamner talukas the Pravara river.

In Poona District 11 rural and 3 urban circles were infected and deaths were reported from 29 villages. The number of deaths recorded was 159.

In Sholapur district, 78 villages reported deaths, 587 deaths in all, mostly in Barsi, Madha and Sangola talukas.

Satara district recorded 396 cholera deaths from 81 affected villages. Badly affected talukas were Satara, Khandala peta and Koregaon.

In Ratnagiri district, only one village Hatkhamba was affected and 4 deaths were returned.

The history for Guzerat is given by the Assistant Director of Public Health as follows :—

"The shortage of rainfall in parts of Guzerat during 1923 seemed to point to danger of outbreak and all local authorities were advised as regards protection of their water-supplies, buying in of stocks of cholera medicines, etc. Action was taken accordingly by many. Fortunately the anticipation though strengthened by the irregular advent of the monsoon did not prove correct, except in one district, Ahmedabad, and there the outbreak was brought under control. Only 56 deaths resulted, 25 of them in Dholka taluka and 19 in Ahmedabad City."

Sind, free from epidemic since 1921, recorded 409 deaths. The Assistant Director reports :—"In view of the circumstances favourable to the spread of cholera—hot summer, floods and excess rain—the epidemic was comparatively mild. The districts which suffered most from canal breeches and flooding were also the worst sufferers from cholera, *viz.*, Nawabshah 252 cases and 127 deaths ; Karachi, Hyderabad and Larkana 107, 55 and 97 deaths respectively.

The first case occurred in Chilia village, Karachi district, in the end of June and the disease spread by human agency to other districts. The water supplies already fouled by floods were favourable to the growth of specific infection. In some places, notably Naushahro Feroz town, the inhabitants fled and so helped to disseminate the disease.

Epidemic cholera in Sind used to appear every other year. Now more attention is paid by the public to the guarding of water supplies as a result of the diffusion of knowledge of the subject by the two touring Instructors during the short time they were entertained (1921)."

44. The usual precautionary and preventive measures were advised and were carried out with varying thoroughness. Noticeable results were in Karachi district where the Inspector of Sanitation and Vaccination (a Medical man) was deputed on special cholera duty. The prompt action on the advice of the Assistant Director by the Collector at Dholka and elsewhere and by the municipality at Ahmedabad City may be said to have stemmed a rising epidemic in Guzerat.

A Medical Officer was appointed on special cholera duty. The Inspector of Sanitation and Vaccination, Ahmedabad Zilla, was also placd on the duty. Infection was carried to other three neighbouring villages and a case was reported from Dholka town also. Owing to the prompt action taken by the Collector, the epidemic was brought under control and the infection died out in Dholka taluka from 18th August 1924. Fearing the spread of infection to Ahmedabad city, a letter was addressed to the President of the municipality and that body resolved to take all the precautionary measures. The first case occurred in the

town on 29th August but the epidemic was stopped within 22 days and only 19 deaths occurred.

The A. D., Southern Registration District, states:—

A few essential measures taken promptly and with meticulous care as to details should go a long way in minimising the annual ravages of cholera and finally eradicating it. The essentials are:—

(1) Provision of protected drinking water supplies for villages depending solely on the neighbouring rivers or nullas, (2) Prompt notification of the first case of cholera, (3) An adequate supply of permanganate of potash crystals and pills should be kept in stock not only with the Mamlatdar but also with the village officers, and (4) Phenyle should be supplied both to the Mamlatdars and to the village officers in disinfecting clothes, etc.

In Western Registration District, routine preventive measures were carried out. In 18 villages of East and West Khandesh and Nasik districts, 233 persons were treated with potassium permanganate pills. Out of them, 160 recovered and 71 died. The percentage of recoveries was, therefore, 69.

During the year under report, a grant of Rs. 15,000 was sanctioned by Government for measures against outbreaks of cholera, *e.g.*, supply of cholera treatments and potassium permanganate for disinfecting village water supplies. Out of this sum cholera treatments and potash permanganate were supplied to taluka officers and others in the Presidency.

Dysentery and Diarrhœa.

45. This heading shews a considerable increase on the previous year's figures—28,926 deaths (15,379 males and 13,547 females) as compared with 22,238 or a death-rate of 1·51 against 1·16 for 1923 and 1·43 the mean of the previous five years. It is probable that the total includes a proportion of the cholera deaths—sporadic cases and those at the beginning and end of mild local epidemics.

The number of deaths registered under dysentery and diarrhœa in previous years is as follows:—

Year.		Deaths.	Year.		Deaths.
1901–1910 mean	..	52,919	1922	.. ..	21,118
1911–1915 ,,	..	39,455	1923	.. ..	22,238
1916–1920 ,,	..	34,156	1924	.. ..	28,926
1921	..	26,799			

The urban death-rate was 2·01 and the rural 1·39 against 1·75 and 1·02, respectively, in 1923. The highest death-rates for urban areas were recorded in Pandharpur (7·38), Borsad (6·35), Gokak (5·11), Honawar (4·77), Bhatkal (4·77), Gokarn (3·85), Bagalkot (3·59), Dharangaon (3·51), Erandol (3·28) and Barsi (3·08). The highest death-rates for rural areas were recorded in the districts of Belgaum (3·38), Ahmednagar (3·35), Sholapur (3·04) and Bijapur (2·57).

Improvement in water supply and drainage are early reflected in the death return from dysentery and diarrhœa. Defective drainage is the

explanation of the high rates in the two Kanara towns in the above list (Gokarn and Bhatkal) acting by polluting the shallow wells from which they derive their drinking water.

46. *Dysentery.*—Under the first sub-heading 6,517 deaths were registered against 5,214, the death-rate being 0·34 against 0·27 in 1923. The urban death-rate was 0·50 and the rural 0·30 as compared with 0·40 and 0·24.

Under Diarrhœa 22,409 deaths were recorded against 17,024. The death-rate was 1·17 against 0·88 in 1923. The urban death-rate was 1·51 and the rural 1·09 as compared with 1·34 and 0·78. 15 towns returned death-rates above 2 per 1,000 of population.

Besides the towns mentioned under the combined heading the following shew high mortality from one or both of these diseases—Poona Suburban, Malwan, Bhiwandi, Sholapur, Kurla and Poona City— all notably defective in the matter of drainage or conservancy.

In Appendix III, a table is given shewing the effect on the death-rate by the introduction of a piped water-supply; it will be noticed that the mean death-rate from Cholera and Dysentery and Diarrhœa for the years succeeding installation ending with the year under report, shews great improvement over that for the quinquennial mean preceding the introduction of a piped supply in practically all the towns.

Plague.

47. The curve of Plague mortality resumed the lower trend of very recent years. 9,214 deaths were registered equal to a death-rate of ·48 as contrasted with 33,741 and a death-rate of 1·76 in 1923, a year of some recrudescence in severity.

The total number of deaths since 1903 is given below:—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1903	.. 281,269	1910	.. 25,043	1917	.. 162,874
1904	.. 223,957	1911	.. 100,399	1918	.. 79,478
1905	.. 71,363	1912	.. 28,984	1919	.. 9,626
1906	.. 51,525	1913	.. 25,288	1920	.. 13,857
1907	.. 93,609	1914	.. 20,060	1921	.. 4,672
1908	.. 27,345	1915	.. 43,824	1922	.. 8,379
1909	.. 24,316	1916	.. 79,507	1923	.. 33,741
				1924	.. 9,214

The distribution of plague given in detail in Annual Form No. XII shews that the chief areas of mortality are the same as in recent years, *viz.*, Satara, Sholapur, East Khandesh, Belgaum and Dharwar. For the year under report, Bijapur and Ratnagiri appear next in the order of severity. 85 per cent. of the total plague deaths was in those seven districts. Guzerat has now run practically free from plague for the 5th year in succession thereby joining Sind which with the exception of Karachi City has always been comparatively immune. The usual relative freedom of the Konkan south of vicinity of Bombay

City is disturbed this year by the appearance of Ratnagiri in the above list. There too the epidemic was to a great extent local—mostly confined to Dapoli and the influence of Bombay on the Sea-port (Harnai) of that taluka is probable. The Southern Konkan proper was free, such incidence as is recorded for the administrative district being above ghats—in Mundgod and Haliyal circles bordering on a severely infected part of Dharwar District.

Bijapur district which had come lightly through the recurrence of 1920 and 1923 suffered a reverse and the epidemic was preceded by high rat mortality.

In Belgaum district 975 deaths were recorded against 5,854 in 1923. Chikodi and Hukeri talukas reported death-rates of 2·14 and 2·20, respectively. Among town circles Gokak suffered heavily reporting a death-rate of 3·30 per mille while Belgaum and Nipani towns escaped very lightly with 5 and 8 deaths, respectively.

In Dharwar District 751 deaths were registered against 7,983 in the previous year. The death-rate was 0·72 against 7·70 in 1923. Bankapur and Kod Talukas suffered heaviest, the death-rate being 2·15 and 1·23, respectively. Among town circles Dharwar and Navalgund were the worst infected, recording death-rates of 1·34 and 5·08, respectively. Gadag and Hubli towns were practically free, reporting 2 and 1 deaths only. In Gadag rat-trapping was carried out and 10,372 rats were killed.

In the Central Registration District, 3,981 deaths were recorded against 12,866 in the previous year. Over half of the registration circles were affected. In Satara, Karad taluka was the worst—1,227 of the total 2,087 deaths but all were affected. The highest incidence was in January; the epidemic had ceased by April but re-appeared in August and continued till the end of the year.

In Sholapur district, the city itself was the epidemic centre—683 of the total 960 deaths. Barsi town contributed 49. The Assistant Director reports:—

"Plague broke out in Sholapur town in an epidemic form on 2nd October 1923 and continued till the end of March 1924. It broke out again on 29th August and continued till the end of the year. Almost all attacks and deaths were verified and prompt measures were taken to stamp out the epidemic. Leaflets about the preventive measures to be adopted were distributed among the people. A vigorous inoculation campaign was started by the Municipality and 12,927 persons were inoculated. A rat campaign was also carried out. 574 traps were employed and the average number of rats caught daily was 151. The work of disinfecting houses where dead rats were found or where plague attacks occurred was carried on vigorously. A segregation hospital was kept open in charge of an S.M.S. Officer but people took very little advantage of it."

The Health Officer, Sholapur, reports:—

"Inoculation remained unpopular with the bulk of the people inspite of all our attempts to bring home to them the remarkable protection it affords to the individual. Evacuation though not unpopular, was carried out by the people in a very imperfect way..... Where promptly carried out as in the Sadar Bazar, the epidemic was rapidly brought under control.....Indiscriminate emigration from infected to uninfected parts of the city could not be prevented.....Some sections of the people regarded anti-plague measures as an attack on their liberty. Under the above circumstances, Plague continued to prevail in the city despite well-directed measures to control the malady."

The Ahmednagar outbreak applies mainly to Sheogaon taluka, 147 deaths and Pathardi Peta 44 deaths out of the total of 206 for the district.

In Western Registration District, 2,516 deaths were recorded against 4,571 in the previous year. The death-rate was ·63 against 1·15 in 1923.

In East Khandesh District, 2,115 deaths were recorded against 3,776 in the previous year. The death-rate was 1·97 against 3·51 in 1923. Plague prevailed throughout the year except May, June and July. Pachora, Amalner, Erandol and Jalgaon talukas returned 538, 156, 117 and 101 deaths respectively. Chopda, Dharangaon, Yawal and Amalner towns recorded 256, 106, 71 and 61 deaths, respectively.

In West Khandesh District, 43 deaths were recorded against 50 in the previous year. The death-rate was 0·7 against ·08 in 1923.

Nasik District was practically free from Plague. Malegaon Municipality carried on the rat campaign throughout the year. 650 traps were employed with the result that 20,866 rats were killed. The municipality first started the campaign by baiting in 1917-18 and by trapping from 18th April 1918. The Assistant Director reports :—

"If the incidence of Plague in Malegaon during the last 11 years is taken into consideration, the figures will shew that the town has enjoyed absolute immunity from plague for the last 5 or 6 years and since the public health condition has in no way improved during the recent years, this immunity may safely be ascribed to rat destruction."

Bombay City recorded 409 deaths against 1,327 in the previous year. The death-rate was ·36 against 1·16 in 1923. Ratting Operations—690,571 rats were caught and destroyed and 2,247 found to be plague infected. The daily average number of traps issued was 880.

In connection with the freedom of Guzerat, the Assistant Director states :—

"Rat mortality was reported from Anroli village of Kapadvanj taluka. The Inspector of Sanitation and Vaccination was at once ordered to the village to advise on measures to be taken to prevent an outbreak. These visits were repeated and his final report shewed the salutary effect of the action taken—not a single human case of plague occurred."

In Sind Registration District, 122 deaths were recorded against 490 in the previous year. All but 3 occurred in Karachi City.

84. *Anti-Plague Measures.*—During the year under report, no special plague inoculators were engaged by the Public Health Department as there was no requisition from the Revenue Authorities owing to the mild type of the disease. Anti-plague inoculations were performed by Civil Surgeons, Officers in charge Hospitals and Dispensaries, Medical Officers in charge Prison Hospitals, private practitioners and others.

The total number of persons inoculated was 60,327 as compared with 145,395 in the previous year. Out of these 56,602 were performed in British Territory and 3,725 in Native States.

During the year under report 47 cases of plague amongst persons inoculated were reported, of which 23 died. Out of the 47 cases, 26 were attacked wih in ten days of inoculation and 21 after ten days of inoculation; 13 died within 10 days of inoculation and 10 after 10 days of inoculation.

By districts the number of operations were 14,343 in Sholapur; 8,205 in Bijapur; 7,665 in Belgaum; 6,038 in Satara; 4,298 in Dharwar; 2,774 in East Khandesh; 2,712 in Ratnagiri and 2,237 in Ahmednagar. In the towns of Sholapur, Bijapur, Wai, Karad, Dapoli, Sheogaon, Jamner and Hangal 14,299; 7,147; 3,755; 1,753; 1,598; 1,539; 1,358 and 1,178 inoculations were performed and in Bombay City 6,689 (as against 10,579 in the preceding year). In Jails, 6,438 inoculations were performed, mostly in the Common Prison (5,547) and in Bijapur Prison 659.

Rat Destruction Measures.—Rat traps from the stock in use during the Belgaum-Dharwar operations were sold or lent to local bodies for use as a preventive measure.

In Belgaum and Nipani towns rat destruction operations were carried on continuously throughout the year. 45,700 rats were caught, 6,500 were examined and 19 found to be plague infected in the former town, while in the latter 26,889 rats were caught. In Chikodi, Hukeri and Gokak towns rat trapping was carried out from October to December but the result was not satisfactory. In Bijapur town 956 rats were caught, 66 were examined and all of them found to be plague infected. Dhulia carried out an organised campaign; the number of traps commissioned was 522 and 50,496 rats were caught, 22 were examined and 4 found to be plague infected. The total expenditure incurred on this campaign was Rs. 2,238-11. The rat campaign carried out by Malegaon Municipality referred to above was of organised nature under a qualified Sanitary Inspector and special staff but the number of traps in daily use was less than half the standard requirements. These operations cost the Municipality Rs. 944-5. Karachi carried out vigorous operations throughout the year and destroyed 64,400 rats with 450 traps. In Hyderabad, 487 traps were issued daily and the total catch was 35,650. The rat campaigns in Bombay and Sholapur Cities have been referred to above.

Small-pox.

49. The small-pox epidemic of 1924, foreshadowed in the previous year has proved the most severe since 1905. The total of deaths was 11,152 equal to a death-rate per mille of 0·58 compared with 0·15 in 1923 and ·16 the mean of the quinquennium.

The annual mortality for previous years is given below :—

Year.	No. of deaths.	Year.	No. of deaths.	Year.	No. of deaths.
1901–1910 mean	4,962	1916 ..	3,289	1921 ..	1,771
1911 ..	4,727	1917 ..	3,095		
1912 ..	6,331	1918 ..	8,063	1922 ..	1,170
1913 ..	9,833	1919 ..	6,232	1923 ..	2,811
1914 ..	4,209	1920 ..	3,536	1924 ..	11,152
1915 ..	1,425				

Distribution.—Detailed figures of this Presidency are given in Annual Form No. VIII. The disease was widespread throughout India.

Urban areas suffered worse than rural, the death-rates being respectively 1·14 and 0·45. While the epidemic was severe in practically all Collectorates, those of the Western Registration District were as in the previous year especially affected. Thus West and East Khandesh reported 1,620 and 1,680 deaths or ratios of 2·64 and 1·56 respectively and the ratios in Kolaba, Nasik, Thana were 1·09, 0·95 and 0·75. The Central Registration District was also very badly affected—Poona District (936 deaths) shewed a ratio of 0·95 ; Ratnagiri 0·52 and Sholapur 0·49. Other excessive rates were Ahmedabad (0·93), Kaira (0·41) and Hyderabad Sind (0·65) districts and Bombay City 1·07 (1,231 deaths).

The highest urban death-rates were recorded in Panwel (5·22), Mahad (5·00), Barsi (4·71), Poona City (4·55), Hyderabad (4·43), Nadiad (3·38), Chiplun (2·91) and Ahmedabad (2·64).

Of the 11,152 deaths from small-pox, 3,532 were infants under 1 year and 5,606 children between 1 and 10 years of age.

86 per cent. of the mortality was in the first half of the year and March was the month of maximum severity (*vide* Chart VII).

50. The Officers of this Department enquired into the vaccinal state of 747 cases of small-pox with the following results :

371 were among the vaccinated and 376 among the unvaccinated. Of the former, 13 died, giving a case mortality of 3·5 per cent. Of the latter, 69 died, giving a case mortality (18·0 per cent.) about 6 times as great as among the vaccinated. The average age of vaccinated persons attacked was 42 against 7 for the unvaccinated persons and the average age of the vaccinated persons fatally attacked was 15 against 6 for the unvaccinated.

51. The following is a short summary for each Registration District :—The heaviest incidence was in the Western with 5,329 deaths and the Central returned 2,270, Guzerat 1,410, Sind 687 and Southern 225 deaths as compared in that order with 1,486 ; 566 ; 104 ; 91 and 89 in 1923.

Western.—Out of 85 Registration Circles, 79 circles and 1,515 villgaes were affected. The Assistant Director writes :" Absence of a severe epidemic for a considerable time had lulled the public mind into a false sense of security and there had been a growing indifference towards vaccination in return for which the public has had to pay dearly in this

epidemic of 1923-24. As a proof of this it may be stated that the incidence of small-pox was lowest in Bombay Suburban District where Vaccination is compulsory in two municipal towns and where the people, being more advanced, take more readily to vaccination. The heavy incidence of the disease in West Khandesh was brought to the notice of the President of the District Local Board with a recommendation to appoint temporary vaccinators and conduct vaccination campaigns on lines specified. The President carried out the scheme on the lines recommended. Vaccination campaign was carried out in 18 places. 21,263 persons were examined, 4,130 found requiring vaccination and 1,243 were vaccinated. The necessity for action was brought to the notice of all the Collectors and Presidents of District Local Boards in this Division and suggestions were invited from the local bodies for pushing on vaccinations, but no suggestions were received. Efforts on similar lines by the municipality of the chief town of that District (Dhulia) met with no response—the President showed that of 450 children in need of vaccination only two were brought forward. The policy thus proving a failure, the municipal body, are considering the introduction of the Compulsory Vaccination Act."

In the Central R. D. the disease was even more diffuse and its virulence was but a shade less. A detailed enumeration of the places affected does not, therefore, seem called for. In Ratnagiri Collectorate the infection of all the towns and many of the villages was attributed to Bombay with which City they are in regular and constant communication. The illiterate Bhandaris and Mahomedans of the district as a class mostly leave their children unvaccinated.

Practically the whole of Guzerat also was affected. The total deaths for the Registration District were 1,410. There has been recently anti-vaccination activity as in a few other places in the Presidency that has caught on amongst some few persons of the educated classes. The chief centre of mortality was Ahmedabad City where 714 of the 824 deaths of that Collectorate were recorded.

Though prevalence was less universal and virulence mitigated in the remaining Registration Districts, there is yet a very high toll of deaths.

In the Southern R. D. deaths amounted to 225 in about 2,000 cases of small-pox.

In Sind, the disease persisted throughout the year. There were 687 deaths; nearly two thirds of that number were within the two cities of Hyderabad and Karachi. The Assistant Director states "Hyderabad alone was responsible for 322. Two hundred and forty-nine of these were unvaccinated and 14 vaccinated. The vaccinal state of the remainder in unknown. The attack rates for vaccinated persons—31 and for unvaccinated—450 out of a total of 542, cases fully bear out the claims of vaccination as a powerful protection against small-pox. Thanks to years of anti-vaccination propaganda there was a large accumulation of unprotected amongst the child population and the town was ripe for a severe epidemic".

52. The regularity of recurrence of epidemic small-pox is commented on by the Assistant Directors :—

*" The Guzerat figures shew a cycle with a 6 year interval as seen by the epidemics of 1905, 1911, 1917 and 1923-24 which is similar to what has been noticed in Calcutta and must be more than a mere coincidence ".

" In Sind the interval between epidemics has been at nearer 7 years, *e.g.*, between 1905-1912-1919 and with the growing neglect and opposition to vaccination a shortening is to be feared, already 1925 bids fair to compete with 1912 ".

" In Karachi (119 deaths) the municipality as advised took energetic steps to stamp out the disease, by opening extra vaccination stations, etc. The services of senior vaccinator were lent for the work ".

" The incidence of deaths amongst Hindus at Hyderabad was 4·84 per mille of population as compared with 3·20 for other casts and it is the Hindus who have adopted the Anti-Vaccination attitude. The Health Officer and his Vaccination Superintendent and staff worked whole-heartedly to get as many vaccinations and re-vaccinations done as was possible and these efforts prevented the epidemic from being a still more serious disaster to the City ".

Injuries.

53. There were 7,374 deaths recorded from Injuries of which 4,313 were among males and 3,061 among females. The total has thus touched a low figure for this little-varying cause. The number registered in 1923 was 7,514, while the decennial mean is 7,872.

The following is an analysis under the different sub-heads. The drop in the number of deaths of females by drowning and the increase in deaths of males by wounding are the most noticeable features in the contrast with the previous year :—

	1924.			1923.		
	Male.	Female.	Total.	Male.	Female.	Total.
Drowning	1,171	1,446	2,617	1,136	1,617	2,753
Poisoning	98	43	141	82	40	122
Hanging	161	77	238	181	66	247
Wounding	1,020	442	1,462	900	460	1,360
Wild beasts	40	6	46	44	13	57
Snake-bite	761	458	1,219	794	476	1,270
Rabies	168	80	248	161	75	236
Railway Accidents ..	130	37	167	131	40	171
Other Causes	764	472	1,236	789	509	1,298
Total ..	4,313	3,061	7,374	4,218	3,296	7,514

Snake-bite deaths :—The highest number occurred in Ratnagiri District, *viz.*, 240. Next in order were Thana 123, Satara 80 and Ahmedabad 69, while Bombay City reported five. In the Southern Registration District, there were 108 deaths from snake-bite. Of these 70 were among males and 38 among females. 95 deaths were inquired into. In 17 cases the snake was identified as cobra and in these the interval between bite and death varied from one to 9 hours. These details are thus very similar

to last year's report and the same can be said as regards the other Registration Districts.

Rabies.—Ahmedabad and Kaira again contributed largely, *viz*, 41 and 29 respectively to the deaths under this sub-heading; Nasik reported 27.

54. Suicidal deaths have steadily increased since 1920. The total is 550 (337 males and 213 females) against 518 (321 males and 197 females) in 1923. Details for the districts returning the highest number are as follows :—

District.	Drowning.	Poisoning.	Hanging.	Wounding.	Railway.	Total.
Bombay City. ..	18	40	13	29	1	101
Bijapur ..	4	..	40	...	..	44
Dharwar ..	9	2	29	1	..	41
Thana ..	6	2	29	2	..	39
Satara ..	4	12	13	1	..	30
Belgaum ..	0	3	25	0	0	28
Surat ..	23	..	4	1	..	28

Other Causes.

55. 159,008 deaths (80,377 males and 78,631 females) were registered as compared with 140,154 in 1923 and a quinquennial mean of 139,400.

So great a variation from the mean—increase of 14 per cent—is unusual under this head. Ill-defined causes of death such as convulsions, debility old-age that apply mostly to the very young and the aged are included under " Other Causes " and it has been shewn (paragraph 30) that the increase in mortality for the year affected those age periods.

The annual mortality for previous years is as follows :—

Year.	No. of deaths.	Ratio per mille.	Year.	No. of deaths.	Ratio per mille.
1901-1910 mean..	140,618	7·61	1922 ..	130,766	6·82
1911-1915 mean..	144,911	7·40	1923 ..	140,154	7·31
1916-1920 mean..	164,773	8·41	1924 ..	159,008	8·30
1921 ..	134,263	7·01			

56. *Deaths from Child-birth.*—one of the sub-heads of ' Other Causes ' shews a pronounced decrease to 4,059 from 4,400 in 1923. For the Southern, Central, Western, Guzerat and Sind Registration Districts, the total deaths were 912 ; 895 ; 688 ; 437 and 998 respectively, as compared with 770 ; 743 ; 1,201 ; 399 and 1,192 respectively in 1923. In Bombay City 129 deaths were recorded during the year against 95 in 1923.

Taking the Presidency as a whole one woman was reported as having died as the result of child-bearing to every 168 live births as compared

with one per 155 in 1923. The urban and rural figures are (one per 88 and 200 respectively against 83 and 182 in the preceding year.

Amongst Collectorates the toll of life exacted by child-birth is greatest in Kanara, where a mother died for every 45 births registered. The maternal mortality rates for other Collectorates of the Southern Registration District are Dharwar 1 to 139, Bijapur 1 to 191 and Belgaum 1 to 274. Elsewhere the following districts shew high rates:—Thana 1 to 102 births, Kolaba 1 to 174, Ahmednagar 1 to 164 and Ratnagiri 1 to 196. The Sind rates are still higher, *e.g.*, Sukkur 1 to 57 births, Karachi 1 to 68 and Hyderabad and Nawabshah 1 to 73. Sind towns also shew inordinate rates : Shikarpur a maternal death in every 16 births, Larkana in every 21 and Sukkur 1 in every 25, but owing to default in birth registration (with a few exceptions) Sind figures are only comparable *inter se.* The same is the case in Poona City—1 per 27 births. More reliable records are Surat 60, Karachi 68, Ahmedabad 74 and Hyderabad 96.

These figures shew the urgent necessity for improving the conditions under which women bring forth children.

The Assistant Director of Public Health, Sind, R. D., remarks :—

*" Although its deaths from child-birth are still the highest in Sind, Shikarpur shews a marked improvement and this is due to the activities of the Women' Health and Education Society. A maternity home started in June where cases are admitted free of charge. In a carefully kept record of some 225 cases, I found not a single fatality occurred either of mother or child. In addition to its efficient midwifery service very vigorous propaganda work is being done by the Organiser who is an ardent sociologist and the sympathies and services of the local medical practitioners have been enlisted ."

As regards the improvement in the maternal mortality rate in Hyderabad Town, he reports :—

" The good work done by Miss Piggot in Hyderabad by educating the " Dais " in modern midwifery practice has been responsible in keeping down the deaths from child-birth. A reference to the figures for Hyderabad will shew that whereas in 1921, one woman died from child-birth to every 57 births, in 1922 one woman died to 83 births, in 1923, 1 to 88, and in 1924 one woman died to every 97 births. As the birth-rate per population and the efficiency of registration have remained about the same mark during that series of years one must conclude that if the death-rate from child-birth which prevailed in 1921 had remained the same in 1924, 53 women would have died from child-birth whereas only 31 died, a distinct saving of 22 lives. The experience in Hyderabad clearly shews that the only way of saving women from deaths from child-birth is by educating the indigenous " Dais " in modern principles."

57. The number of deaths from the Chief Causes for each Collectorate, by months, are shewn in Annual Forms Nos. VII to XII.

SECTIONS VII AND VIII.

No remarks.

SECTION IX.

SANITARY WORKS—CIVIL.

MUNICIPALITIES.

58. The number of municipalities remained unchanged during the year. There are in all 156 with an aggregate population of 2,670,179. Their aggregate income for the year was Rs. 1,94,97,750 of which Rs. 1,33,85,461 or just 69 per cent. was raised by taxation, giving an incidence per head of population of Rs. 5-0-3 which is an increase of annas six and pies five per head compared with the previous year. Taxation varied between Rs. 13-12-0 per head in Karachi City and annas 13 and pies 8 in the small municipality of Sindkheda in West Khandesh. The figures include the special conservancy cess in the case of many municipalities.

The following is the incidence of income and taxation per head of population in the larger municipalities :—

	Income.	Taxation.
	Rs.	Rs.
Bombay	23	20
Karachi	19	13
Ahmedabad	9	7
Poona	8	6
Surat	6	5
Sholapur	6	4

The expenditure on public health measures in Karachi City was Rs. 8 per head of population and averaged over Rs. 2 for all the remaining municipalities.

The following table shews the birth and death-rates amongst the municipal population in each district. Out of 156 municipalities, 24 suffered from plague, 86 from small-pox and 33 from cholera while 14 recorded cases of influenza.

In 9 Revenue Districts as compared with 8 in 1923 the municipal death-rate exceeded 30 per 1,000 of population. Comments on the death rate in principal towns is given in paragraph 19.

STATEMENT A.

Shewing by district combined birth and death-rates for municipalities in the Bombay Presidency during the year 1924.

District.	Number of municipalities.	Ratio of births per 1,000 of population.	Raito of deaths per 1,000 of population.				
			Cholera.	Small-pox.	Plague.	Influenza.	From all causes.
Ahmedabad ..	9	40·60	·06	2·12	..	·01	37·18
Kaira	8	38·70	..	1·60	..	..	34·07
Panch-Mahals ..	2	27·04	..	·42	..	..	18·66
Broach ..	3	43·42	..	·02	..	..	28·45
Surat ..	3	31·40	..	·54	..	..	29·79
Thana ..	4	24·98	..	1·14	·90	·02	25·55
Ahmednagar ..	4	21·89	·12	·08	·04	..	17·50
East-Khandesh ..	12	29·87	1·88	1·56	1·97	·00	38·53
West-Khandesh ..	7	38·95	·10	1·12	·23	·01	26·97
Nasik	7	30·22	·45	·89	..	..	26·94
Poona	11	17·26	·11	3·30	·09	..	38·32
Satara	12	24·07	·27	·19	2·24	..	22·12
Sholapur ...	5	30·66	·59	1·72	4·15	..	43·65
Belgaum ..	6	33·01	·32	·03	·52	·15	23·87
Bijapur ..	4	35·54	2·78	·10	1·23	·29	39·47
Dharwar ..	10	30·69	·51	·10	·69	·21	28·53
Kanara ..	8	31·84	..	·06	..	..	20·21
Kolaba ..	7	22·19	..	2·65	·43	·02	22·89
Ratnagiri ..	4	29·55	..	1·01	·21	..	20·42
Karachi ..	5	39·44	·04	·61	·09	·00	29·32
Hyderabad ..	6	36·16	·19	3·48	·01	..	33·08
Sukkur ..	5	32·22	·00	·34	·00	..	28·25
Larkana ..	5	33·49	·81	..	..	..	30·69
Nawabshah ..	2	20·48	1·06	6·95	..	..	15·85
Thar and Parkar ..	2	7·82	·10	·80	..	·40	31·01
Upper Sind Frontier	1	21·84	..	·94	..	..	22·22
Bombay Suburban.	4	15·74	·01	·60	·05	..	17·52

59. There is in recent years noticeable progress on the part of municipal wards taking up projects that tend to improvement of Public Health. The services of this Department are being more and more called upon for general and technical advice, and it may be stated that the same is the experience of the Sanitary Engineer's Department. At the same time it is necessary to keep constantly bringing to the notice of the municipalities their defects and needs in regard to sanitary matters many of which would otherwise remain unattended to in spite of being seemingly obvious. The Assistant Directors of Public Health in the course of their regular tours and casual visits make a point of conferring with the local authorities or officers on matters that concern them in common. During the year complete sanitary surveys of 16 towns were made and inspections or reports not amounting to a survey were made in the case of 72. Advice was given in all these and in numerous other cases where inspections were less systematic in matters of water supply, conservancy, prevention of

disease and in measures of more general nature. Action was taken by many of the municipalities in matters of conservancy, water supply, the prevention of spread of epidemics and in measures of more general nature. The following may be given as samples of action taken by municipalities during the year.

Dhulia—appointed a Medical Officer of Health and Amalner also strengthened its superior sanitary staff.

Bhusawal, Faizpur, Chalisgaon, Shirpur, Bijapur, Bagalkot, Nipani and Dharwar constructed new gutters. Bhivandi also improved its drainage by the construction of a length of about 200 feet of drain.

A large number of municipalities remain below standard in conservancy establishment and sanitary implements. Endeavours are, however, being made in many towns and cities to increase them as the following will shew :—

Improvements in the collection of rubbish were effected at Surat, 60 new bins ; at Jambusar 14 and Haliyal 3. Surat also purchased 7 night-soil carts.

For the removal of sullage, rubbish, etc., motor transport was purchased by Bandra and Ahmedabad at a cost of Rs. 10,200 and Rs. 6,600 respectively. For the same purpose carts were provided at Erandol, Igatpuri, Guledgud, Bulsar and Anand. Ahmedabad also constructed 60 pucca masonry kundis for the collection of sullage.

Bandra spent Rs. 17,000 for securing sufficient and regular water-supply and a mutton market was opened there at a cost of Rs. 15,600 ; at Karachi two model markets were constructed ; Karachi also built 230 tenements for the municipal sweepers on model sanitary lines and provided 40 white-glazed twin urinals with automatic flushing arrangements in various quarters of the City and sanitary public latrines (cement) in the Lyari quarter.

Chalisgaon and Dharwar—also constructed latrines. Nipani constructed four new roads and Kurla filled a pit measuring about 20,000 square feet.

Broach, Kaira and Dohad distributed quinine.

Saundatti and Bagalkot removed prickly-pear.

The Nasik system of trenching night-soil is working satisfactorily in ten towns of Guzerat. The system has attracted the attention of the Agricultural Department on account of the high manurial value of the poudrette produced. In Nadiad the system has proved specially successful ; the municipality realised Rs. 957 from the sale of poudrette. Viramgaon realised Rs. 113 against Rs. 37-8-0 last year. Dakor municipality realised Rs. 125. Much depends on regular attention given by the superior municipal staff. The system has been introduced also in Kaira, Malegaon, Dhulia, Dharangaon, Bhusawal and Jalgaon.

As a result of personal instructions by the Assistant Director of Public Health, the municipalities of Sukkur, Shikarpur, Shahdadpur and Tando Adam are arranging for the adoption of this system.

60. *Municipal Health Staff.*—During the year under report, Medical Officers of Health with full qualifications were employed in Karachi, Hyderabad, Ahmedabad, Surat, Poona and Sholapur and in Karachi and Ahmedabad a qualified Assistant Health Officer in addition was employed. The Dhulia municipality employed a Health Officer possessing the qualification of a 1st Class municipal town. Health Officers holding the medical degree of the Bombay University in addition to the Sanitary Inspector's certificate were employed at Bandra, Ahmednagar and Bijapur; Nasik, Dakore and Nadiad employed medical officers with the public health qualification of Sanitary Inspectors. Dr. Gune, L.M. & S., continued to hold charge in Pandharpur.

Seventy-four qualified Sanitary Inspectors were employed in 32 towns as follows: Ahmedabad 15; Sholapur 8; Poona 7; Surat 6; Karachi, 4; Ahmednagar 3; Sukkur 2; Pandharpur 2; Nasik 2; Bijapur 2; Hubli 2 and in the following 1 each:—Bulsar, Kurla, Bandra, Broach, Viramgaon, Barsi, Panchgani, Dhulia, Jalgaon, Bhusawal, Amalner, Malegaon, Trimbak, Belgaum, Gadag, Bagalkot, Dharwar, Hyderabad, Larkana, Rohri and Tando Adam. In 1923 there were 71 men of this class distributed among 31 towns.

61. *Training of Sanitary Officers.*—Eighty-four students were on the class roll and 56 of these along with ten students from previous classes made up the total of 66 that appeared for the Sanitary Inspectors' examination. 39 passed the examination and obtained the certificate of the Royal Sanitary Institute, London. Amongst the successful candidates, there were 6 M.B.,B.S., 1 L.M. & S., 1 British Graduate (L.R.C. P. & S.), 7 L.C.P.S., 2 Veterinary Graduates and 1 Sub-Overseer. More advanced classes were held simultaneously for the medical men and at a further examination 11 out of 23 were passed as capable to fill posts as Health Officers of 2nd Class towns.

62. *Local Sanitation by Dispensary Medical Officers.*—Thirty Medical Officers in charge of dispensaries in Western Registration District, 13 in Central and 15 in Guzerat gave useful advice to local bodies and rendered valuable service in combating epidemic diseases like cholera and plague. The Medical Officers at Dholka, Sanand and Modasa, receive a small allowance from the municipality for such advice.

63. *Sanitary Board.—Vide* separate Report—Appendix I.

64. *Town Improvement Schemes.*—No town improvement schemes for which Government grants were provided were completed during the year.

65. *Extension of Village Sites.*—Progress in this direction may be summarized as under:—

East Khandesh—9 acres, 14 gunthas of land were acquired for the village of Bhamre, Taluka Chalisgaon. Village planning was attended to.

Bijapur—34 villages are in need of new gaothans. In 14 of these acquisition proceedings are completed and plots are allotted over; in 4 villages Government land is added to gaothans and in 13 acquisition proceedings are going on.

Larkana.—An area of 32 acres and 8 gunthas was acquired, reclassed as non-agricultural and distributed amongst inhabitants for the relief of overcrowding in Mehar and an adjoining village ; a proper lay-out of the extension was arranged for.

In Nawabshah District the following Government grants were sanctioned : Rs. 600 for compensation for plots acquired in Sarhari village and Rs. 13,238 for land for sanitary purposes in Tharushah ; Rs. 6,100 for compensation and sanitary improvements at Mithiani. An extension area acquired in 1921-22 for Shahpur was divided into plots and sold by auction.

66. *District and Taluka Local Boards.*—The aggregate income of the 27 District Local Boards and 222 Taluka Local Boards amounted to Rs. 1,61,81,235. Income and taxation per head of population were Re. 1-0-11 and annas 3 and pies 9 respectively against annas 13-8 and annas 3-4 in 1923. A total sum of Rs. 22,94,166 was spent by these bodies on communications while Rs. 7,92,296 were spent under the head of Public Health Works.

Under Government Resolutions, General Department, No. 1570 of 16th April 1924 and 13th February 1925, the following grants were placed at the disposal of the Commissioners of Divisions for distribution among the District Local Boards of the Presidency and Sind. These grants are intended to be primarily utilized for expenditure on roads and bridges.

	Rs.
Northern Division	2,75,000
Central Division	3,30,000
Southern Division	2,40,000
Sind	3,05,000

Government also sanctioned a grant-in-aid of Rs. 98,000 for improvements of village water-supplies in G. R., G. D., No. 2429 of 17th April 1924 which was distributed as follows : Northern Division 32,000; Central Division 32,000 ; Southern Division 25,000 and Sind 9,000. These grants were supplemented by allotments from Local Funds and popular contributions and were expended on constructing wells, tanks, troughs and cisterns, in repairing old wells and closing step-wells and in boring and jumper operations.

775 new draw-wells were constructed during the year of which 287 and 125 were in Sukkur and Nawabshah Districts respectively, 26 step-wells were converted into draw-wells.

Local prevalence of guinea-worm continues to be reported. This is a fertile cause of illness and step-wells the chief medium of its propagation ought to be banned.

67. *Notified Areas.*—Two Notified Area Committees—Ambernath and Hungund—were created during the year and one—Castle Rock—was abolished making a total of 22 as compared with 21 in the previous year (Committees that did not start work are excluded).

The population served by these Committees was 78,058 and the total income from revenue excluding opening balance came to Rs. 3,44,060 giving an incidence of income per head of Rs. 3-10-3. The following tables shew the details of income and expenditure and the combined birth and death-rates for Notified Areas in each District :—

STATEMENT B.

Income and Expenditure of the Notified Area Committees during the year 1924-1925.

Districts.	Serial number.	Names of towns and villages.	Population.	Income including opening balance.	Expenditure.	Closing balance.	Remarks.
				Rs.	Rs.	Rs.	
Bombay Suburban.	1	Andheri ..	6,211	88,731	84,969	3,762	
	2	Borivli	5,957	14,906	13,560	1,346	
	3	Malad	8,520	30,529	20,935	9,594	
	4	Santa Cruz ..	6,092	64,610	53,390	11,220	
	5	Ville Parle ..	7,479	16,963	16,435	528	
	6	Kandivali ..	3,444	7,624	4,573	3,051	
	7	Ambernath ..	452	733	120	613	
Nasik ..	1	Manmad ..	7,260	32,463	18,264	14,199	
Ratnagiri ..	1	Rajapur ..	6,349	25,476	24,545	931	
	2	Khed	3,842	3,673	2,849	824	
	3	Dapoli	2,689	8,110	5,045	3,065	
Bijapur ..	1	Hungund ..	5,562	3,369	2,861	508	
Kanara ..	1	Castle Rock ..	741	4	4	0	Abolished *Vide* G. R. G. D., No. 1675, *of* 30th June 1925.
Sukkur ..	1	Koti Sultan ..	1,696	1,819	835	984	
	2	Mirpur ..	1,680	2,127	1,367	760	
	3	Ubarao	1,716	2,446	1,857	589	
	4	Daharki ..	2,095	2,628	1,315	1,313	
Nawabshah ..	1	Naushahro ..	3,400	3,566	3,245	321	
	2	Kandiaro ..	3,013	1,651	1,306	345	
Larkana	1	Mehar	2,746	17,525	13,850	3,675	
	2	Khairpur Nathan Shah.	1,484	6,220	5,655	565	
	3	Dadu ..	2,996	4,078	3,244	834	
Hyderabad ..	1	Tando Jam ..	2,634	4,809	2,096	2,713	
Total ..	23		78,058	344,060	282,320	61,740	

STATEMENT C.

Shewing by districts, combined birth and death-rates for Notified Areas during the year 1924-25.

Districts.	Number of Notified Areas.	Rat o of births per 1,00(of population.	Ratio of deaths per 1,000 of population.					
			Cholera.	Small-pox.	Plague.	Influenza.	From all causes.	
Bombay Suburban.	7	9·98	..	·08	·08	..	10·62	
Nasik	1	20·98	..	·25	..	..	17·52	
Ratnagiri ..	3	31·55	..	1·24	3·00	·07	28·18	
Bijapur	1	28·21	1·80	·00	..	..	27·13	
Kanara	1	..	..	..	..	..	..	Abolished.
Sukkur ..	4	30·14	..	..	..	..	32·53	
Nawabshah	2	33·99	1·40	..	..	..	34·15	
Larkana ..	3	29·20	..	..	..	..	20·34	
Hyderabad ..	1	..	..	..	..	..	..	Popul'a t i o n not available.

No works of importance were carried out during the year except that the Andheri N. A. Committee obtained a new plot of land approved by the Assistant Director of Public Health for trenching night-soil on Nasik system.

Advice on public health matters was given by the Assistant Directors, *e.g.*, in Sind to the Notified Area Committees at Khairpur, Daherki, Mirpur Mathelo, Naushahro and Kandiaro.

68. *Village Sanitary Boards.*—The Sanitary Board at Gholwad-Bordi in Thana District was converted into Village Panchayat during the year. There thus remained only one Sanitary Board in the whole Presidency, *viz.*, at Siddapur in Kanara district. Its income including opening balance was Rs. 512, Rs. 80 of which was popular contribution and expenditure amounted to Rs. 356 leaving a closing balance of Rs. 156.

69. *Sanitary Committees and Village Panchayats.*—In several places villages are in a neglected sanitary condition for want of an authoritative body, the Sanitary Committees have been abolished by local order on the passing of the Village Panchayat Act which they decline to take advantage of. That village panchayats are capable of doing good work will be shewn in this note.

During the year there were 327 Sanitary Committees and 220 Village Panchayats. Only those of the latter that have started work are included. For example, there are 41 Panchayats in Sholapur District but only 7 are functioning.

Details of income and expenditure and of birth and death rates for the population under their administration are given in the following tables :—

STATEMENT D.

Statement by districts of Income and Expenditure of the Sanitary Committees during the year 1924.

Districts.	Number of Sanitary Committees	Total income, including opening balance.	Popular contribution.	Total expenditure.	Closing balance.
		Rs.	Rs.	Rs.	Rs.
Ahmedabad ..	1	1,874	1,473	1,587	287
Kaira	26	36,879	8,994	17,620	19,259
Panch Mahals	5	4,168	419	3,292	876
Broach	1	1,153	200	178	975
Surat	7	13,135	4,108	10,528	2,607
Thana	..	....	..	..	..
Total, N. D. ..	40	57,209	15,194	33,205	24,004
Ahmednagar	..	..	..	..	..
East Khandesh	..	..	..	..	..
West Khandesh	..	..	..	..	..
Nasik	17	19,036	2,398	5,874	13,162
Poona	2	807	191	630	177
Satara	..	..	..	..	..
Sholapur	..	..	..	..	..
Total, C. D. ..	19	19,843	2,589	6,504	13,339
Belgaum	13	26,430	2,730	10,182	16,248
Bijapur	5	2,529	..	289	2,240
Dharwar	24	25,866	3,865	9,824	16,042
Kanara	1	150	..	150	..
Kolaba	15	8,763	1,519	3,764	4,999
Ratnagiri ..	2	1,425	615	922	503
Total, S. D. ..	60	65,163	8,729	25,131	40,032
Karachi	40	36,843	8,000	16,222	20,621
Hyderabad	39	43,452	3,450	24,441	19,011
Sukkur	16	15,743	4,168	10,065	5,678
Larkana	48	32,662	9,155	26,943	5,719
Nawabshah	26	39,224	8,458	20,220	19,004
Thar and Parkar ..	26	37,713	7,158	18,036	19,677
Upper Sind Frontier ..	12	22,634	5,491	14,864	7,770
Total, for Sind .	207	228,271	49,880	130,791	97,480
Bombay Suburban ..	1	5,835	2,949	5,093	742
Grand Total ..	327	376,321	79,341	200,724	175,597

STATEMENT E.

Shewing by districts the Income and Expenditure of the Village Panchayats during the year 1924.

Districts.	Number of village panchayats	Total income, including opening balance.	Popular contributions.	Total expenditure.	Closing balance.
		Rs.	Rs.	Rs.	Rs.
Ahmedabad	4	6,536	3,665	4,891	1,645
Kaira	1	5,388	..	4,378	1,010
Panch Mahals ..	..	..	..	..	..
Broach	11	22,555	2,818	8,752	13,803
Surat	3	4,262	2,590	2,938	1,324
Thana	35	40,470	22,383	28,315	12,155
Total, N. D. ..	54	79,211	31,456	49,274	29,937
Ahmednagar	25	35,228	....	23,257	11,971
East Khandesh ..	30	172,245	....	108,568	63,677
West Khandesh ..	16	17,474	5,969	11,395	6,079
Nasik	9	16,694	4,754	9,894	6,803
Poona	11	24,998	6,415	14,039	10,959
Satara	34	16,818	8,176	10,982	5,836
Sholapur	7	13,737	275	10,604	3,133
Total, C. D. ..	132	297,197	25,589	188,739	108,458
Belgaum ..	..	..	..	..	..
Bijapur	15	20,941	..	13,931	7,010
Dharwar ..	..	..	..	..	..
Kanara	..	..	..	..	..
Kolaba	18	8,475	3,751	4,982	3,493
Ratnagiri	1	164	48	117	47
Tota,l S. D. ..	34	29,580	3,799	19,030	10,550
Grant Total ..	220	405,988	60,844	257,043	148,945

STATEMENT F.

Showing by districts, combined birth and death-rate for Sanitary Committee Areas for the year 1924-25.

Districts.	Number of Sanitary Committees.	Ratio of births per 1,000 of population.	Ratio of deaths per 1,000 of population.				
			Cholera.	Small-pox.	Plague.	Influenza.	From all causes.
Ahmedabad ..	1	27·21	·06	..	..	..	21·39
Kaira	26	36·71	..	·39	..	..	27·58
Panch Mahals ..	5	44·12	..	..	..	..	31·20
Broach	1	38·66	..	..	..	..	23·38
Surat	7	41·76	..	·19	..	..	23·30
Nasik	17	42·97	·99	·92	·03	..	31·07
Poona	2	40·03	..	1·91	..	..	32·08
Belgaum ..	44	38·93	..	..	3·48	..	28·12
Bijapur ..	5	35·46	3·39	·03	·72	·18	34·49
Dharwar ..	24	39·07	2·00	·01	·75	..	34·94
Kanara ..	1	35·09	..	..	..	..	43·86
Kolaba ..	15	38·51	..	2·12	..	..	27·14
Ratnagiri ..	2	32·68	..	·17	2·44	..	26·13
Karachi ..	40	31·92	..	·61	..	..	30·53
Hyderabad ..	39	35·14	·33	..	..	..	47·38
Sukkur ..	16	43·10	..	..	..	..	31·05
Larkana ..	48	29·33	..	..	..	..	22·23
Nawabshah ..	26	47·61	·74	..	..	..	41·92
Thar and Parkar ..	26	28·94	·06	·19	..	·59	35·47
Upper Sind Frontier	12	37·27	..	..	..	..	27·90
Bombay Suburban ..	1	23·44	..	·44	..	..	19·64

The Assistant Directors of Public Health during their tours inspected the sanitary arrangements of the villages where Committees or Panchayat existed and their recommendations for improvements were forwarded to the Revenue Officers concerned.

The Assistant Director, Western R.D., remarks that some of the Village Panchayats in East Khandesh have commenced doing excellent work and that the Panchayatdars display a keenness in marked contrast to the apathy he encountered in some other districts.

Examples of useful work done by Sanitary Committees and Village Panchayats, are given below :—

Pachora, a grain distributing centre, displayed commendable zeal in adopting plague preventive measures recommended by the Assistant Director of Public Health and spent Rs. 1,080. Nagardeola constructed a dam 60′ in length and 6′ high for the provision of water. Nasirabad employed two carts for the removal of refuse and rubbish outside the town. All three are in East Khandesh. Manchikeri (Kanara District) cleared the public plots and stripped lands round the gaothan of undergrowth.

Several Village Panchayats and Sanitary Committees spent money on improvements to water-supplies and during the prevalence of cholera disinfected them and distributed cholera medicines.

SECTION X.

GENERAL.

Public Health Laboratories.

70. The Poona and Karachi Public Health Laboratories continued their valuable work. Ahmedabad municipality has now opened a laboratory of its own in charge of a medical officer holding the B.Hy., M.B.,B.S., qualifications. For purposes of the Pure Food Act several small local laboratories will be necessary.

Poona Laboratory.—Dr. J. B. Mama, D.P.H., was in charge throughout the year. A large amount of analytical work mostly in connection with water-supply was carried out during the year. Routine bacteriological examination of samples from four different water-plants, viz., Cantonment, City, Kirkee and Pashan was carried on as in past years so as to maintain a check on the quality of the final products, the efficiency at each stage of the process of purification and to ascertain the correct dosage of reagents.

(1) The effect of the different processes on the water in the case of the Poona Cantonment plant is shewn in chart VIII. The effect of the new plant as compared with the old filters on the death-rate are shewn in chart IX.

The samples from Poona Cantonment water-works included 269 of raw canal water, 195 of settled, 356 alumed, 278 filtered and 278 of the chlorinated water. Close on 350 samples from different public and private taps were also examined.

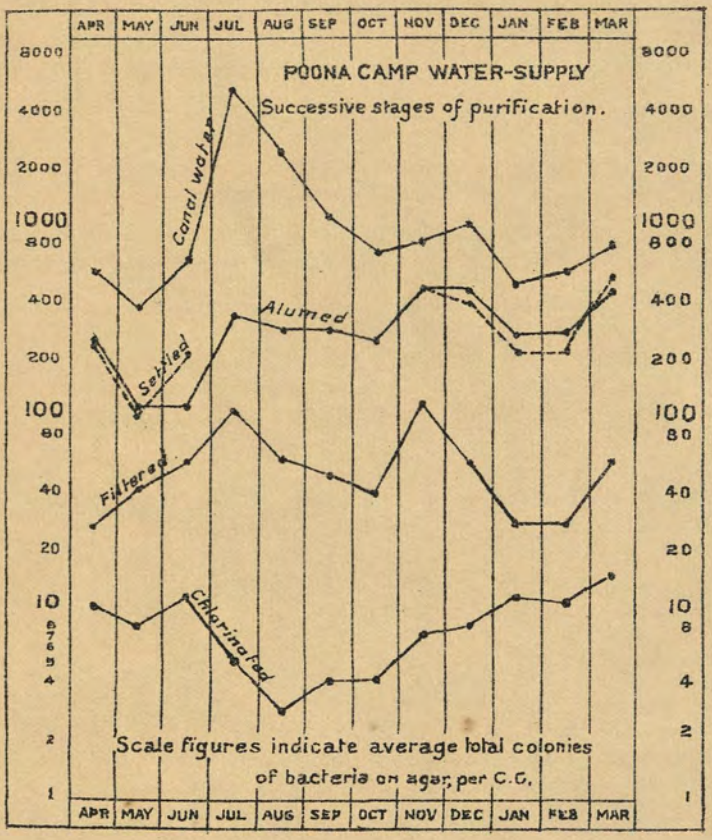
(2) For the Poona City supply, 268 samples from the canal and 279 from City taps (chlorinated) were analysed.

(3) There are two other installations in Poona, viz., at Pashan—Slow Sand Filters serving Ganeshkhind and East Kirkee all the year round and Kirkee except in the dry season—and at Holkar's Bridge where there is a Rapid Filter Plant for supplying Kirkee with water from the Mulla river during the monsoon. The number of samples examined was:—Pashan chlorinated 95, filtered 1 and raw water 9; Kirkee chlorinated 91, filtered 54 and raw water 12.

(4) 55 water samples were received from several municipalities, prisons, etc., and 291 were examined for experimental purposes. The total for the year was 2,881 samples examined bacteriologically, and 3,143 chemically.

(5) There were no changes in the working at any of the places attended by this Laboratory. Units Nos. 2 and 6 of the Poona Camp Plant were re-graded, after a period of 9 years. They required 23 and 22 days' running before they yielded filtrate of normal bacteriological standard. Similarly the Kirkee Plant when brought into use at the end of the dry season was found to require 25 days to "mature".

CHART VIII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8
6
5
4
2
1
POONA CAMP WATER-SUPPLY
Successive stages of purification.
Canal water
Settled
Alumed
Filtered
Chlorinated
Scale figures indicate average total colonies
of bacteria on agar, per C.C.

As in the previous monsoon the dose of alum to form a filtering floc was added at the entry of the raw water into the first of the chain of settling tanks instead of just before its admission to the filters as is done for the remaining 8½ months of the year. The 60 hours' rest with alum was found to remove the excess turbidity and thus relieve the filters of overload.

(6) Routine work for water installations included also estimation of the chlorine dose necessary according to the varying character of both water and bleaching powder kept in stock; and, determination of the dose of alum necessary for sedimentation.

(7) The effluent of Hadapsar Septic Tank was analysed twice weekly. Other sewage samples and samples of tea, ghee, drugs and chemicals, rat-poisons, were examined as required. The detailed information as regards Chemical examination is as follows :—

Cantonment Water-works.—Raw water 269, settled 272, filtered 278, and chlorinated 278. *Pashan and Kirkee works:*—Raw water 58; City Works 4; samples from outstations 52.

Estimation of strength (in chlorine) of bleaching powder 579; determination of bleach dose 985; determination of alum dose 187; sewage effluent 136 and foods, drugs and chemicals 45.

(8) Dr. Mama visited the Water-works at Hubli and submitted a special report indicating the defects in the manner in which the plant there is worked. The report is being dealt with by the Sanitary Board. Dr. Mama also visited Talegaon, Alandi and Bhosri in connection with local supplies. The prevalence of Guinea-worm in the last named village is under investigation. Lectures were given by him at the Engineering College, Training College for Men and at the Medical School, Poona. Demonstrations at the water-works were given to classes of students, medical and Military Officers and other visitors. It is to be added that His Excellency the Governor after a systematic inspection of the water-works was pleased to express his satisfaction at the work done.

(9) *Karachi Public Health Laboratory.*—Dr. F. Barretto, D.P.H., was in charge throughout the year.

Chemical and bacteriological examination of daily samples of the Karachi chlorinated water-supply was carried out during the year and from July samples of the raw water from the Dumlotte main also were examined.

The results of bacteriological examination shew that the supply varies greatly in quality. During rain and floods, etc., at other times (repairs along the line) it is liable to acquire pollution and constant laboratory check is, therefore, indicated.

The quantity of bleaching powder required for the daily supply of 5 million gallons varied from 4 to 32 lbs. There is an ingenious device of the Health Officers for preparing the bleach solution. The method of adding the solution needs improvement so as to permit of accurate

regulation of dosage on the indications of the laboratory findings. In July and August the water, as chlorinated and supplied, showed persistence of a degree of pollution.

In connection with this supply, 548 samples were examined bacteriologically and 361 chemically.

(10) The Paterson Filtration Plant installed at Sukkur started working early in May 1924 and the laboratory at Karachi commenced to function in connection with its working. It may be mentioned that for such installations on modern lines the continuous regular service of a water Laboratory is essential and this must be maintained in order to secure full value for the capital outlay at Sukkur. Two series of analyses were carried out by Dr. Barretto at Sukkur and thereafter samples were forwarded for examination at the Laboratory once a week. 145 samples were analysed bacteriologically and 85 chemically.

(11) Examination of other water samples was carried out as submitted, from the Sukkur Barrage Engineers and from various districts in Sind. Analysis of milk and ghee was carried out chiefly on behalf of the Karachi Municipality. It would appear that adulteration is the practice as of 96 milk samples purchased from vendors in Karachi as many as 54 were found not to be genuine milk. In connection with questions received from Government regarding the sale of inferior tea, 26 samples were analysed.

Chemical work, examination of specimens, preparation of sensitised vaccine, etc., for medical Institutions and practitioners was carried on as in previous years. 66 rats sent to the laboratory for plague were found to be negative.

(12) A course of instruction was given to 16 students of the Municipal Sanitary Inspectors' Class.

Fairs and Festivals.

71. *Pandharpur.*—The chief day of the Ashadi Fair fell on 13th July 1924. 1,64,295 pilgrims paid the tax and there were 5,671 exemptions.

Dr. A. da Gama, D.P.H., Assistant Director of Public Health, C.R.D., having ascertained as usual the itineraries sent out the lists of halting places, with dates, to the Surgeon General and to Collectors and Native State authorities through whose areas palkhis were to travel. Medical supervision by Dispensary Medical Officers along the routes was thereby secured. The Assistant Director of Public Health inspected the Dnyanoba (Alandi), Tukaram (Dehu) and Sopankaka (Saswad) palkhis at their earlier halting places.

The Nira bridge on the Satara Road being under reconstruction, the Alandi palkhi proposed a long diversion from the usual route—*vid* Bhatghar. This was inadvisable and on the advice of the Assistant Director they went *vid* Nira Railway Station and ferry arrangements were provided against emergency but the causeway remained fordable.

Government sanctioned Rs. 10,500 for sanitary arrangements at Kurduwadi Junction pending the decision of the question of permanent responsibility for sanitary arrangements there for pilgrim passengers to Pandharpur which is still under their consideration.

The usual arrangements at Wakhari—filling the reservoir and treating the water with alum and chlorine, latrine trenches, cholera hospital, etc. —were made. Palkhis arrived there on the evening of 12th and were medically examined.

The usual staff and medical and sanitary and other arrangements at Pandharpur for the fair were also ready well before the pilgrims began to arrive. The in-coming and out-going pilgrims were inspected at the Railway station and at the Octroi Nakas. Shortage of water-supply was slightly felt in the higher parts round the Temple. The new reservoir of 6 lakhs gallons capacity was completed and used this year. All the wells in and round Pandharpur as well as the storage reservoirs were permanganated before and during the Fair.

Steps were taken to control cholera in Sholapur district and Pandharpur taluka in particular, before the fair. Pandharpur itself was free from cholera till 13th July. The first case was found on the 14th July. This and most of the following cases were mainly among the pilgrims from the Berars and the Nizam's Dominions. There were 43 cases with 26 deaths while the fair lasted and to the end of July 64 attacks and 47 deaths. Ten clerks were employed by the municipality to find out cases by visiting houses.

The Nivrittinath (Trimbak) palkhi got infected (3 cases and 1 death) on its return journey as in the previous year near Kem and there were two cases and one death among the followers of the Eknath (Paithan) palkhi while returning through Karmala taluka.

(2) The Kartiki Fair in November, (attendance over 1,10,000) and the smaller Pandharpur fairs and the Chaitri and Kartiki Festivals at Alandi, the fair at Shingnapur (some 40,000 pilgrims) were also catered for in respect of sanitary and preventive arrangements under the guidance of the Assistant Director of Public Health. Except for 3 cases and 2 deaths amongst pilgrims from Sangli State during the Alandi (Kartiki) Fair no epidemic outbreak occurred at these or at any of the remaining smaller fairs in the chain of pilgrimages in the Central Registration District.

(3) Yellama Fair (January), Gokarn (February) and Yamnur (March) are the three important fair centres in the Southern Registration District. The total number of pilgrims attending the fairs is 1,25,000 ; 20,000 and 15,000 respectively. The Assistant Director of Public Health inspected Gokarn a month before the fair and made suggestions as to its sanitary arrangements. Water-supplies at all three centres were treated with permanganate of potash. There was no outbreak of infectious disease nor were these fairs responsible for any epidemic elsewhere.

(4) In Guzerat festivals were held at Vantha in Dholka (30,000 pilgrims), at Shukaltirth near Broach (35,000) and a large fair " Manekthari Punem " in Dakore.

The Dakore municipality not having replaced their Health Officer who had resigned, there was no responsible officer for the sanitary arrangements of the chief Fair (Manekthari). Cholera was prevalent in several places in the Presidency and infection had reached Guzerat. The position and the danger to the public health was strongly brought to the notice of the Municipality by the Assistant Director and the Collector; precautionary measures were advised and in the meantime a Sub-Assistant Surgeon was deputed to the centre from the Kaira Civil Hospital.

The services of Inspectors of Sanitation and Vaccination were placed at the disposal of the district officials for Fair duty whenever it was possible to do so.

(5) At the Lal Shahbaz Fair at Sehwan, Sind, the Inspector of Sanitation and Vaccination was sent to take charge of sanitation so far as it was provided for. Only 4 extra sweepers out of 15 required by the municipality, were obtained at the wages offered and only 5 out of 30 sanitary chowkidars and these were mostly employed on other duties. The Municipality on this occasion engaged a medical man to inspect pilgrims at the Railway station and to assist the Municipal Secretary in the treatment of drinking water supply, etc. The attendance, about 40,000 was much larger than in the previous year. It is fortunate that no epidemic infection appeared under the circumstances of this festival.

Sanitary Associations.

72. A new Sanitary Association formed at Shikarpur brings the number in the Presidency to ten—all doing very useful work as the following examples shew :—

(1) At Karachi 1,261 maternity cases including 13 premature, were attended by the midwives of the Association with only 2 fatalities. Close on 6,000 house visits were paid by the Lady Health Visitors and advice was given on care of infants, need for attending hospital, etc., and supervision was exercised in cases of labour conducted by 'dais' of the Sanitary Association. In the Bherumal Thakurdas Maternity Home opened towards the end of the previous year, there were 254 confinements. The Crouch Creche showed a persistent falling off in attendance and was, therefore, closed.

(2) The training of Dais, started some years ago at Hyderabad has been extended to six centres and 69 dais were under training during the year. 38 dais in Khairpur State appeared for examination before an outside examiner, Dr. Marks. 17 were given passes in the 'first class', 11 in the second and 4 in the third class. In Miss Piggot's report the written remarks of the examiner are quoted :—

"I was surprised and extremely pleased at the way most of them answered. It does their teachers much credit. They really seem to understand the evils of dirt and the value of cleanliness."

The appointment of a superintendent to ensure that what has been learnt is kept up in practice, registration and raising the status of the trained dai; and continuing the system of training until skilled attention is within the reach of every woman are the lines for further progress stated by Miss Piggot.

It may be added that the Deccan and other parts of the Presidency badly need a movement on the same lines.

A Welfare centre opened in Mahomed-jo-Tando, a poor quarter of Hyderabad, during the year is being well attended. Magic lantern lectures and lectures to mothers given here and in other places were much appreciated and more were asked for.

(3) The excellent work of the newly founded Women's Health and Education Society started by Professor S. N. Pherwani, M.A., has already been referred to (para. 56). Besides the corps of honorary medical and other workers, a paid staff of 11 is employed by the Society and there are 11 beds in the Maternity Home.

Since December last, a Health Association has been started in Shikarpur town, much on lines of the Karachi Health Association. A class has also been opened to train Dais of the Society and of the town. The work of the Society was seen personally by the Assistant Director of Public Health and found to be of a very great service in the cause of Public Health and of Infant welfare in particular.

(4) Broach Sanitary Association continued its work on the same line and with the same energy as has been shown in previous reports. The propaganda work and lectures arranged by Mr. C. T. Shah, the demonstrator of this Association, are a special feature. Lectures were delivered also in other places—Baroda and Ahmedabad. The Surat Sanitary Association directed especial attention to campaigns against malaria and small-pox. Other Associations in like manner worked according to the indications of the local requirements and opportunities.

Health and Baby Week.

73. The Baby Week and Health movement is making good progress in the objects it has set out to achieve. These are primarily to arouse public attention to the excessive infant mortality, and to bring home to the women, especially of the working classes, the benefits of hygiene in the home and in the up bringing of their children. Other health matters that come into close association stand also to receive the public attention that is needed, *e.g.*, maternity and in fact matters of public health in general. With the assistance of leading local residents, medical men, etc. Baby Week and Baby Shows were organised in a number of centres—Poona, Kirkee, Dharwar, Karachi, Hyderabad and were every where well attended. The Assistant Directors of Public Health assisted in the work of organisation and gave lectures and demonstrations.

Labour Colonies, etc.

74. *Bombay Development.*—The prevention of malaria in the reclamation area in Bombay is arranged for by an organisation of its own with a working staff under Captain B. S. Chalam, I.M.S., an Officer of special experience in the subject. The area is divided into sections each of which is covered twice a week by the search and larvicide parties. The results of the work combined with the close co-operation of the Military Medical Officers and the residents generally at Colaba has been that, that area enjoys a degree of freedom from malaria greater than prior to the reclamation operations and it escaped an incidence practically amounting to an epidemic during the year in the city proper.

The large labour colonies outside Bombay-Kandivali Quarries, etc., come within the province of the Public Health Department and arrangements in detail and on sound principle have been made by the Directorate for general sanitation, water-supply, vaccination, prevention of malaria and epidemic diseases, recording of vital statistics, etc., on the recommendations of the Assistant Director of Public Health, Western Registration District, who exercised continuous supervision towards maintaining the health welfare of the large body of workers. Scrutiny by that officer of the figures of patients treated in the hospital indicated some of the lines for prevention activity: for example, the high rate of admissions for bowel diseases led to analysis of samples of the drinking water-supply which shewed signs of sewage pollution and gave the indications for lines of prevention put into effect with good results. Trench latrines have been provided at all camps and night-soil disposal arrangements on safe lines have been made. Segregation huts for new arrivals is another useful measure adopted. A rat campaign in the camps has been followed by entire freedom from plague for the year and efficient vaccination countered anything like an epidemic of small-pox despite the general prevalence of the disease in the Presidency.

75. Work on the Lloyd Barrage and the consequent introduction of a large, and in part floating, labour population into Sukkur present consequent problems in public health. The labourers sojourn at present mostly in the town itself and the added danger of importation of disease for the local population, apart from such responsibility as is due for the temporary residents would be expected to stimulate the local authority to special activity in health matters. In particular one disease at present very prevalent along the North Western Frontier Province from which some of the labour is drawn, needs to be guarded against in the interests of Sind generally, *viz.*, Relapsing Fever. The Municipality, however, at this inopportune moment decided to dispense with their Health Officer. It is fortunate that the town is now provided with a rapid filter plant but this in turn calls for the regular supervision of an expert officer of Health.

A township for the accommodation of officers and subordinates on the works has been constructed. It is to be regretted that the Public Health Department was not consulted as regards sanitation in connection with

the lay out. Subsequently the Barrage Authorities have availed of the services of this Department. The Assistant Director visited the township twice and tendered advice on the conservancy arrangements, water-supply, disposal of refuse and night-soil and other questions of general sanitation. He also made useful suggestions in connection with the proposed housing of labour gangs on barrage grounds. Analysis of water samples with reference to both drinking and boiler purposes were done by the Public Health Laboratory, Karachi.

Industrial Workers

76. The Assistant Directors of Public Health continued their inspection of Factories (under the Act of 1911) in the course of their touring submitting copies of their reports to the Managers and to the Chief Inspector of Factories.

Forty-two Ginning Factories and Presses and four Mills were inspected by the A. D. P. H. Western Registration District. The quarters provided for temporary workers in many ginning factories were found to be unfit for human habitation and generally inadequate as regards light and ventilation. A common defect noticed in all factory quarters is the absence of smoke-vents over the cooking places. Many of the defects in accommodation are more often due to ignorance on the part of the owner rather than to intention to save expenditure; approved standard plans and regulations are needed. Cisterns, etc., kept filled against the occurrence of fire are frequently found to be sources of mosquitoes. In view of malaria prevention it is suggested that it be made incumbent on owners to adopt one of the usual preventive measures, *e.g.*, efficient covering; periodical emptying and cleansing; treatment with larvicides. A dispensary and arrangements for maternity relief recently provided by the Spinning and Weaving Mills at Jalgaon are commendable and might well be copied by the mills at Amalner and other places.

The quarters at 6 factories inspected by the Assistant Director of Public Health, Guzerat, were found to be suitably situated but satisfactory latrine and conservancy arrangements were absent in all except the Advani Mills, Ahmedabad, where automatic flushed latrines and septic tank are installed. Light and ventilation in the work-rooms was fairly good in all but the Cotton Oil Mill at Vejalpur. For night work, however, lighting was found very defective—candles only. The remarks made with regard to welfare, medical or first-aid arrangements in Gujerat Mills in last year's report apply to those inspected this year. The Advani Mills were the only ones with provision for sick workers. Suitably fitted creches at mills employing women are another necessity.

In Sind, 28 Factories, representatives of various industries, were inspected and reported on by the Assistant Director. The following is an extract from his general notes :—

" Fifteen of the factories were in Nawabshah District and belong to the cotton industry. Labour is engaged by contract for the season and is from

amongst the backward classes not belonging to Sind. Women are fully employed and some children. Hours of work depend on amount of cotton available and there is no doubt but that at times working hours are excessive. Water-supply was found to be fairly satisfactory but there is an almost general lack of sanitary arrngements often to the annoyance of the neighbourers and to the danger of the health of all. Housing is very defective. Opportunity was taken to discuss matters with Managers and it is expected that improvements willl be undertaken.

The hide industry in Karachi is an important one. It includes tanning, pressing and storing. There are special municipal bye-laws and on the whole the industry is fairly inoffensive as conducted. Three factories were inspected. Sanitary convenience and washing facilities were found very defective but the general sanitary surroundings were of a high order. There is need for special ventilating and 'extraction' of fine particles from the atmosphere in Railway Wagon Workshops (wood particles) and Bone Crushing Factories.

No factory in Sind has inaugurated a Welfare Scheme for its Workers."

PERSONAL PROCEEDINGS.

77. The activities of the Officers in charge of the Public Health Laboratories have been detailed above. (para. 70).

As regards the Assistant Directors of Public Health, it is not possible to convey more than a mere outline of their multifarious duties. Their work in connection with vaccination, for which sole duty their appointments were originally created, is more than sufficient to occupy their full time. It is to be remembered that vaccination, a surgical operation with the attendant risks, is performed by men of the petty clerk type who need constant technical supervision and control. In many of their branches of work outside vaccination, each Assistant Director represents for populations as large as that of Scotland and areas as large as England what are separate departments in a modern Public Health organisation, *e.g.*, vital statistics, inspection of schools, inspection of factories, work in connection with epidemics. Many of the duties that would fall to local Health Officers in the absence of such staff in all rural and all but a very few urban areas, have to be carried out by the Assistant Directors. The office and correspondence work in connection with their various duties is necessarily considerable.

Several full reports of the duties of these officers shewing the advantage that the Public Health has derived from what is numerically but the skeleton of what a full Public Health organisation should be and an inexpensive one at that, have been submitted to Government recently (*vide* this office letter No. R.T.M.—2699, dated the 13th June 1925).

The whole Presidency as one administrative unit has to be dealt with as one for purposes of this Report. It is hardly necessary to state that from vital statistical, epidemiological, climatic, economic, racial and other standpoints bearing on Public Health, it consists of several—five or

six in fact and each of them needs to be envisaged separately as regards rise and fall of birth and death-rate, progress of epidemics, prevention of disease and health matters generally. This is the province of the appropriate Assistant Director. Their records of health matters in their several provinces including their Annual Reports will be invaluable when each district will have a complete Health Staff and prevention of disease receives the attention it demands from local administrations. Extracts and summaries from their reports for the current year appear in most pages of this Report. Their connection with local health matters are referred to in articles in the preceding section (IX)—*vide* under Municipalities and under Labour Colonies, Industrial workers, etc., in this Section. A detailed diary shewing all minutiæ in items of work done by each officer would be impossible. Omitting most routine matters, the following summary of the work that fell to the Assistant Director, Western Registration District, may be taken as a sample.

Dr. Jamshyd Munsiff was in charge of the Western R. D. during the whole year. References to his work are made in different sections of this Report. He visited 161 towns and villages for the various duties, in connection with vaccination primarily. He made complete sanitary surveys of 13 towns and visited 22 Sanitary Committees and Village Panchayats for general sanitary purposes and reported on 15 sites proposed for buildings and other purposes and gave opinion on 22 samples of water analysis. He also inspected 46 Factories, a number of schools, 4 Police Lines, 14 Dispensaries, 2 Leper Asylums, one Mental Hospital and 2 Prisons. The following notes of work done may be added :—

(1) In June a course of lectures and demonstrations were delivered to the Inspectors of Sanitation and Vaccination of the Western R. D. on Registration of Births and Deaths, Notification of epidemic diseases, sterilization of water-supplies, conservancy, flies, food-supply, etc. The Inspectors, after return to their charges, held 120 classes at various centres at which close on 7,000 local officers attended. Presidents of Municipalities and Mamlatdars entered into the scheme ; in many cases they presided over the class and addressed the village officers.

(2) The Salsette area makes many demands on the activities of this officer (*vide* paragraph 74). Constituting as it does, the "environs" of the port of Bombay, it should have a much enhanced advisory and executive Health Staff of its own. In Bandra many recommendations were made by him, *e.g.*, with respect to sullage removal, septic tanks, cesspools, disinfection, milch-cattle, stables, markets and for the most part they were immediately adopted. At Thana, the Kopri township site was visited at intervals and suggestions given in connection with acquisition of land and avoidance of danger of malaria.

(3) He carried out special investigations in connection with the water-supply project for the Barness Schools under construction at Deolali.

(4) As a result of his advising it for the last 3 years, it has been decided to establish a Notified Area Committee at Nasik Road Station

He also succeeded in getting the Trimbak municipality to resolve not to give further house connections in view of the limit to their supply of water and the inadequacy of their drainage. This condition imposed by the Engineers and on sanitary grounds had been accepted by the Municipality at the time they took over the water-works but it was not being acted up to and serious danger to public health threatened. This body also agreed to the emptying and cleansing of the Kushavart Tank—an urgent sanitary measure in preparation for the Nivritti Fair.

(5) At Mora (Uran) special investigation was made into the prevalence of malaria and preventive measures were suggested.

The Inspectors of Sanitation and Vaccination in W.R.D. made remarks in 26 Village Sanitary Inspection Books.

Dr. Accacio da Gama, D.P.H., was in charge of the Central Registration District, throughout the year. He visited 92 villages for Vaccination purposes, made complete sanitary surveys of 3 towns and villages and made remarks in 6 Village Sanitary Inspection Books and the Inspectors of Sanitation and Vaccination in 38. He attended the fairs at Pandharpur, Alandi, Jejuri, Shirala, Shingnapur and Khatgun and inspected Palkhis at Dehu, Poona, Saswad and Wakhari.

He attended the meetings of the Working Committee of Health and Baby Week, Poona and gave a lecture on Infant Mortality and visited the Mission House at Kedgaon.

Dr. R. D. Dalal, D.P.H., held charge in the Southern R.D. up to 6th April 1924 when Dr. K. A. Gandhi, D.P.H., took over. The Assistant Director gave advice in Public Health matters to 12 towns and visited 164 towns and villages for general sanitary purposes and 118 for vaccination. He made remarks in 25 Village Sanitary Inspection Books and the Inspectors of Sanitation and Vaccination in 86. He paid a special visit to Kolhapur to inspect water-supply as desired by the Chief Engineer of the State and advice was given for improving the quality of water. At the request of the Collector of Kanara he made special investigation into the prevalence of high mortality in Supa Petha in early part of the year. As a result of his inspection report on the fish curing yard at Karwar the Collector of Salt Revenue, Bombay, thought it advisable to prohibit one of processes of curing and to improve the site.

Dr. J. L. Pinto, D.P.H., was in charge of the Guzerat R.D. throughout the year. He visited 122 towns and villages for vaccination purposes and rendered advice in Public Health matters to 14. He made remarks in 10 Village Sanitary Inspection Books while the Inspectors of Sanitation and Vaccination in 64.

In consultation with the Health Officer, Surat, measures were devised to combat the anti-vaccination campaign that was being actively conducted in that city. There is reason to believe that the counter propaganda has been effective. Outside his numerous, more or less, ordinary duties there is a most valuable epidemiological survey to be recorded to the credit of this Officer during the year, *viz.*, investigation of the conditions

and prevaleonce of malaria in the Dangs. After a period of five weeks of arduous tour during which the principal centres of that area were visited and the various facts and conditions noted, an exhaustive report that would be worthy of a specialist in malariology was submitted and is now before Government.

Dr. R. V. Shiveshwarkar, D.P.H., was in charge of the office of the Assistant Director of Public Health, Sind, throughout the year. He visited 26 towns and villages and gave advice in public health matters to 178 villages in connection with vaccination and 3 towns for general sanitary purposes. He delivered lectures on personal Hygiene to the students of the Nadirshah Edalji Dinshah Civil Engineering College and on Vital Statistics to the students of the Sanitary Inspectors Class opened by the Karachi Municipality. He visited Sukkur Water Works and made suggestions for improvement from time to time. Under Government orders special inspection was made of a Factory at Hyderabad and a full report submitted is before Government. I would add that the review of his Province by this Officer for the year is one of very special value.

The Assistant Directors also inspected Dispensaries, Schools, Police Li ies, rain gauges, factories, sites proposed for Government buildings, etc., in their lines of tour and gave opinion on the analysis of water samples based on study of the figures supplemented by local knowledge of tee sources.

During the off touring season, the prescribed courses of lectures in Public Health to Medical students were delivered at the Medical Schools, Poona, Ahmedabad and Hyderabad by the Assistant Directors.

The services of Inspectors of Sanitation and Vaccination and vaccinators were further utilized for free distribution of quinine in malarious tracts.

Lieut.-Colonel H. M. H. Melhuish, D.S.O., I.M.S., acted as Director of Public Health till 30th March 1924 when the undersigned resumed charge. During the year, 29 towns were visited in connection with water-supply, drainage and general sanitary purposes. He attended the Fair at Jejuri and the Kartiki Fair at Alandi.

The transfer of all work in connection with quinine distribution from the Surgeon General's office has added to the routine duties of this office, at the same time that the clerical staff has been reduced by one.

The abolition of the post of Personal Assistant in April 1924 has deprived the Director of Public Health of the only technical assistant in his office and makes it very difficult for him to be absent from Poona.

W.O'S. MURPHY, D.P.H.,
Lieut.-Colonel, I.M.S.,
Director, Public Health.

Poona, 11th August 1925.

APPENDIX I.

Annual Report of the Sanitary Board, Bombay Presidency, for the year ending 31st December 1924.

During the year under report there was no change in the constitution of the Board.

2. Two meetings of the Sanitary Board were held, the following being the more important subjects dealt with :—

(1) The Municipality of Matheran submitted an application to Government, through the Sanitary Board, for a loan of Rs. 1,00,000 for carrying out the water supply scheme. The Board recommended that the loan be sanctioned.

(2) The scheme for the water supply and drainage of Kapadvanj prepared in the fair was placed before the Board for forwarding it to Government. The Board recommended a grant-in-aid of 50 per cent. of the cost. The Municipality requested the Board to recommend that Government should be moved to waive all Establishment and Tools and Plant charges in consideration of the fact that nearly half the estimated cost has been collected by private contributions. The Board however did not find itself in a position to accede to this request.

(3) Approval was accorded to the preparation in detail of estimates for additional pumping plant at Pandharpur capable of pumping 2 million gallons in 24 hours.

(4) Approval was accorded to the revised water rates proposed by the Ahmednagar Municipality, *viz.*, annas 10 and Re. 1 per 1,000 gallons for domestic and industrial supplies respectively.

(5) A scheme for water supply to the pilgrims at Alandi was ordered to be prepared to provide for 100,000 pilgrims at 2½ gallons per head by pumping directly from the river, with chlorination, the service being given at four service cisterns.

3. During the year under report the amount of Rs. 20,534 placed at the disposal of the Sanitary Board for minor Sanitary schemes was distributed as under :—

	Rs.
(1) Constructing beef and slaughter house yard at Ratodero (Larkana District)	700
(2) Filling pit at Daro (Taluka Mirpur Bathoro, Karachi District)	3,900
(3) Special repairs to Rajapur Water Works (Ratnagiri District)	750
(4) Water proofing floor of service reservoir at Roha Ashtami (Dharwar District) ...	1,405
(5) Constructing a well at Devargud (Dharwar District)	6,500

	Rs.
(6) Improving flooded village site of Palej (Broach District)	6,200
(7) Temporary water supply for Kartiki Fair at Alandi (Poona District)	500
(8) Constructing protective wall near Kheta Tank (Kaira District)	579
Total Rs. ...	20,534

Water Supplies.

4. The more important of the water works in progress in the Presidency were as follows :—

Sukkur.—Most of the constructional works such as the buildings and the erection of pumping machinery were completed last year. During the year under report the rapid filters and chemical plant were completed. The 15″ rising main was completed and brought into use; Messrs. Worthington Simpson & Co., and the Paterson Engineering Co., completed their contracts for pumping machinery and purification plant respectively and handed over the plant after inspection by the Mechanical Engineer to Government, and the new works were in regular operation supplying filtered and chlorinated water to the City from July 1924. The expenditure during the year amounted to Rs. 40,030.

Hyderabad.—The following works in connection with the water supply were under construction :—

(1) Constructing supporting pillars below the rising main in the Fort.

(2) Covering the rising main with earth and providing proper arrangements for draining off rain water.

(3) Re-caulking the joints of the rising main.

(4) Painting the chimney of the Fort Lift pumping station.

(5) Providing a new bend for the rising main at the Fort Lift pumping station.

The pumping machinery was inspected and passed by the Mechanical Engineer to Government. The water works were completed and handed over to the Municipality on 25th June 1925. The expenditure during the year amounted to Rs. 75,832.

Karachi.—The new conduit from 0 mile to 16⅝ miles was under construction, the major portion of the work over 9 miles length being completed. A new 8″ water main was laid from the Lyari quarter Embankment road near Tahilram Khemchand Dharamsala up to the wool washing plots and 5″ main in Ghizree road. To increase the water supply in the market and old town quarters, new pipes were laid in Daryalal Street, Virji Street, Thanai Galley and Thakurwara Lane. The expenditure on these improvements, including the distribution system, during the year amounted to Rs. 9,76,000. This work was done without Government aid.

Shikarpur.—The Municipality proposes to put down a boring for tapping water to be utilised for flushing drains and street watering. The bore water is to be lifted by a centrifugal pump to be driven by a motor. The expenditure during the year on the purchase of the pump and motor was Rs. 1,185.

Ahmedabad.—To increase the supply of water in the City two infiltration wells 25 feet in diameter were constructed of brick and cement masonry with reinforcement. These wells were connected with the existing works by laying 18″ diameter pipes 700 feet long and 22 feet deep in the sandy bed of the river. Branch water mains of 6″, 5″, 4″, 3″ and 2″ diameter of a total length of 12,910 feet were laid in the different localities in the City. The cost of the above works, executed by the Municipality was Rs. 1,05,000.

The works executed by the Executive Engineer, Ahmedabad District, were the buildings for the new pumping engine and boiler and the foundations for and masonry superstructure of the chimney to a height of 5 feet above ground level. The work of erecting the pump in position was taken in hand by Messrs. Worthington Simpson of Bombay. The expenditure incurred on these works was Rs. 28,037.

Independent Water Supply for Ahmedabad Cantonment.—The Cantonment Authorities required a water supply of their own, independent of the Municipal supply. The plans and estimates for this work, the latter amounting to Rs. 1,08,000 were sanctioned and funds placed at the disposal of the Sanitary Engineer. The excavation of the supply well and of the connection between it and the existing Moghul well were completed; the masonry work of the well was in progress, the wooden curb having been prepared and lowered down into the well. The expenditure to end of the year was Rs. 15,340.

Pandharpur.—The excavation for the foundation of an additional storage reservoir of a capacity of 600,000 gallons, which was in progress last year, was completed and the masonry work, including the pillars for the arches, was constructed; the wash out pipe was laid and the inlet connection made, the overflow chamber completed and the girders supporting the roof arches fixed on the top of the pillars and encased in cement concrete; the bed and walls of the reservoir were cement rendered, and the lime concrete arched roofing was in progress; the expenditure during the year being Rs. 4,262. An infiltration gallery composed of 24″ cement-concrete porous pipes, 240 feet in length, with one inspection chamber 6′ in diameter, was constructed in the sandy bed of the river Bhima, one end of this pipe being connected to the main supply well. This work was stopped in May due to the Monsoon floods; the improved yield proved adequate to meet the demand during the 1924 Ashadhi Fair. The work of extending this infiltration gallery of porous pipes will be resumed during the current year when the river reaches its summer water level. The expenditure on this work was Rs. 19,518. These works were carried out by the Sanitary Engineer's staff from funds allotted by Government.

Poona Cantonment Water Works.—The work of providing an efficient water supply to the Yeravda area, north of Poona, consisted of the following items :—

(1) Laying a 9″ main from the high level reservoir to the railway crossing on the Koregaon Road, and from Yeravda Jail to the new elevated service reservoir—a total length of about 3¾ miles of new main.

(2) Laying 6″, 4″ and 3″ branches.

(3) Constructing a reinforced concrete elevated tank of 100,000 gallons capacity at Yeravda.

This work was completed, the reservoir brought in use and a satisfactory supply given to the Yeravda area ; the completion of this improvement also enabled the Koregaon Road Estate to be given an ample supply from the low level system. These new works were carried out in the Sanitary Engineer's Circle from funds allotted by Government, the expenditure being Rs. 67,319.

In addition to the above works some minor works in connection with the supply of water were carried out at a cost of Rs. 4,983.

These water works which supply water to the Cantonment and the Suburban Municipal areas are managed and worked by Government. The average daily quantity of filtered and chlorinated water supplied during the year was approximately 2·15 million gallons. The average dose of alum and chlorine being 2/3 of a grain per gallon and 0·34 parts per million respectively.

Karad.—The construction of an intake well was undertaken with a 9″ intake pipe 10 feet higher than the original one to take in during the flood season water as free as practicable from silt, at the estimated cost of total Rs. 5,675, the expenditure during the year being Rs. 1,374. The meter below the service reservoir being found inadequate to measure the supply, is being replaced.

Sholapur.—Water mains 6″, 4″, 3″ and 2″ to a total length of 14,443 feet were laid to improve the distribution at total cost of Rs. 38,880. The question of supplementing Ekruk Tank water supply by a new tank at Dahitna is reported to be under investigation.

Matheran Water Supply.—The work of extending the platform at the top of the dam and fixing the valve head stock in position was completed.

Hindalgi Water Supply.—The major portion of the scheme was completed last year, the few remaining items being completed during the year under review ; these were the quarters for the Engineer-in-charge and Chowkidar and the approach road, and a connection between the bottom of the pump well and the river side gallery. The works were carried out by the Sanitary Engineer, the expenditure being Rs. 16,044.

Nargund.—The work here consists of improving the Dandapur and Somapur Tanks and increasing t e supply to them and was

estimated at Rs. 30,150; the Dandapur Tank section was started in April and silt clearance, constructing a feeder channel about 2 miles long constructing waste weir, central bund, etc., were finished within the amount of Rs. 15,000 given as grant-in-aid to the Municipality. Further work had to be closed as the loan applied for by that body was not sanctioned in time. This work was carried out by the Sanitary Engineer.

5. *Boring operations.*—In progress in the Sanitary Engineer's Circle.

Aden.—The 10″ boring that was in progress here during last year was taken to a depth of 710 feet; at which point boulders were met with. In endeavouring to drive the pipe through this formation the 10″ pipe buckled; a 10″ reamer was used with a view to lowering 8″ piping and continuing the boring to a depth of 1,500 feet.

Aniali Bhimjini.—A place on the border of the Bhal tract, where a boring was undertaken at the request of the Collector of Ahmedabad. A 3½″ bore with G. O. plant was taken to a depth of 353 feet. At this point brackish water was met with and the work was stopped as the capacity of the machine had been reached.

Chanchwel.—The 10″ bore that was in progress here in 1923 was continued from 562 feet to 651 feet through sea-sand and saltish water. It being very difficult to drive the pipe through the rushing sand, this bore had to be abandoned.

Dhanduka.—The 9″ bore that was in progress last year and had reached a depth of 434 feet was continued and taken through alluvial soil to a depth of 1,216 feet when rock was met and the tools broke off frequently. This work is still in progress and will be taken to a depth of 1,800 to 2,000 feet or down to strata affording sweet and potable water.

Dholka.—At the request of the Collector of Ahmedabad a 9″ bore with Calyx percussive drill was commenced in May and has reached a depth of 680 feet. It is expected that an artesian supply will be tapped at or about the depth of 800 feet.

Drigh Road near Karachi.—The 10″ bore that had reached a depth of 412 feet was continued and taken to a depth of 653 feet. At this point, the bit broke off; efforts are being made to recover the same.

Jakshi.—At the request of the Collector of Ahmedabad, a 3½″ bore with a G. O. plant was taken to a depth of 219 feet where water bearing sand was encountered, the water rising up to within 5 feet of ground level. The yield of this bore is approximately 8,000 gallons per day.

Panvel.—At the request of the Inspector-General of Police a G. O. type plant was sent to Panvel to take a bore in the well of the Police Lines in May. The work was stopped for want of labour during the rains. A 6″ bore was started after the monsoon and reached a depth of 295 feet through a few feet of reddish sand-stone below the trap rock. The bore is being reduced to a smaller size in order to continue it to a depth of 400 feet with this machine.

Nandurbar.—At the request of the Executive Engineer, East Khandesh, several small bores were taken here. One in the well of the Police Lines yielded good water, the rate of discharge being 1,440 gallons per day at a depth of 151 feet.

Sarkhej.—At the request of the Collector of Ahmedabad a B. E. type machine was sent and an 8" bore was carried to a depth of 268 feet during the year under report. The strata passed through were alternating layers of sticky clay and sand.

Sitapur.—A 7" diameter bore was started and taken to a depth of 438 feet. At a depth of 428 feet a water bearing stratum was struck and sweet water flowed at the rate of 60 gallons per minute, which reduced to a steady flow of 48 gallons per minute.

Talod.—At the request of the Executive Engineer, Ahmedabad District, a G. O. plant was set at work in the well of an inspection bungalow there. A 3½" boring was started and taken to a depth of 213 feet but without success.

Vadgaon.—At the request of the Commissioner of Excise a G. O. plant was sent to take a bore in the well of the liquor warehouse. A 3½" bore was taken to a depth of 91' 6" in hard rock where sweet water was met with, flowing at the rate of 160 gallons per minute.

Vinzuvada.—A 7" bore was started and taken to a depth of 307 feet. At 300 feet an artesian supply of 120 gallons per minute was met. The flow was very unsteady and even ceased altogether for a few days. While making efforts to recover this flow the pipe was damaged at 262 feet and efforts to improve the flow were made without result. A second bore 50 feet away from this bore was started and taken to a depth of 307 feet where an artesian flow was tapped which when tested gave 120 gallons per minute. Attempts are being made to keep the flow steady by lowering a special strainers, as it is found that clay mixed with gravel clogs the bore.

Drainage Works.

6. The principal items of progress in connection with drainage were as under:—

Karachi.—A 24" discharge main was laid in the Napier road. Quotations for ventilating shafts have been accepted. A 24" rising main in old Lyari town is sanctioned and tenders accepted. The expenditure during the year was Rs. 14,000.

Shikarpur.—A katcha drain which used to get filled up with road debris was made into a pukka drain and by raising low portions of the roads near the Fulton Tank, this drain was extended up to the Lady Dufferin Hospital, and this locality thereby improved. This drain will temporarily take sullage on the circular road till the main sewer under design by the Sanitary Engineer to Government is built. Another drain was laid for conveying storm water and sullage into the Sarwar Tank. Sullage from the eastern portion of the town is drained into the Aminshah Hollow. The Municipality is proposing to install an electrically driven plant to pump sullage

into the Gulamshah Hollow, when the Aminshah Hollow is full. The Municipality has spent Rs. 62,829 from their own funds on these works.

Ahmedabad.—At Pankore Naka the road width was very narrow and practically became a nala for storm water during the rains. A drain of sufficient capacity to discharge the storm water from about 100 acres was constructed with a road over it. The storm water from about 50 acres of catchment from Kalupur to Dhanasutars pole was diverted to Kalupur gate by means of an underground drain meeting the moat and running parallel to the Fort wall on the east side. To avoid storm water floods in the monsoon at Kalupur Road a drain 1,900 feet in length was constructed with capacity sufficient to convey the run off from 25 acres. The expenditure during the year was Rs. 60,000.

Sholapur.—The work of connecting the drains from the paying patients ward and the Indian Nurses quarters to the main drainage of the King Edward Memorial Hospital was completed, the expenditure during the year being Rs. 2,393.

Dhulia.—The work here consisted of laying a collecting underground pipe sewer for a length of 4,700 feet from the Head Quarter Police Lines drain to near Municipal School No. 2. During the year, a length of 3,400 feet of this underground pipe sewer was completed. Three open surface drains of a total length of 700 feet behind the houses discharging directly on the Nala were constructed, and twelve intercepting catchpits and sewer connections provided. Each section of the sewer was tested for water tightness in the presence of the Municipal Councillors before filling in the trenches. The Municipality provided funds for this work, Government sanctioning the usual 24 per cent. Establishment charges as a grant-in-aid; the expenditure during the year was Rs. 32,000. This work was executed in the Sanitary Engineer's Circle.

Poona City.—Completion of the branch sewers in the sewered districts was undertaken by the Poona City Municipality under the Sanitary Engineer's supervision and new lines laid to a total length of 7,815 feet.

Hindalgi Jail Drainage.—Some minor works were carried out here. The acquisition of the land required for the sewage farm was in progress. The expenditure during the year was Rs. 7,611.

Gokarn Drainage.—This was a minor sanitary scheme for which funds were given by the Sanitary Board. It consisted of improving and regarding the Kalshankar, Bhendikeri and Tamraparni Nalas, the water in which used to stagnate all the year round. The work was executed in the Sanitary Engineer's Circle. The expenditure was Rs. 9,129.

7. Miscellaneous works carried out in the Sanitary Engineer's Circle—

1. Destruction of water hyacinth.
2. Repairs to Moreodha Nala.
3. Repairs to Jamshedji Bund.

4. Cement and lime Mortar testing.
5. Maintenance of the Khanapur Distillery spent wash pumping plant up to April 30th.
6. Maintenance of Hindalgi Jail water works.
7. Painting the iron work of the Tungarli dam at Lonavla.
8. Constructing a syphon for the Nasik Distillery spent wash channel.
9. Repairing a leak in 10″ main under the Pokhran Dam at Thana and cleaning the 10″ pipe by cleaning rods; a leakage of about 70,000 gallons per day was stopped.
10. Owing to famine conditions in the Bijapur District, at the request of the Collector, borings were taken in the wells at Mangoli and Sutgundar.

Project and Survey Work.

8. In addition to above works actually in execution the Sanitary Engineer's staff was engaged during the year on survey or project work in connection with the following schemes :—

District.	Name of scheme.
Upper Sind Frontier...	Jacobabad Water Supply.
Larkana	Larkana Drainage.
Sukkur	Lloyd Barrage Township Water Supply and Drainage, Shikarpur Drainage.
Hyderabad ...	Improvement to distribution system.
Thar and Parkar . .	Mirpurkhas Drainage.
Karachi	Artillery Maidan Development water supply and drainage, Cantonment Development water supply and drainage.
Ahmedabad . .	Dholka Water Supply, Bavla Water Supply.
Kaira	Kapadwanj Water Supply, Kaira Police Lines Water Supply, Sarsa Water Supply, Borsad Water Supply.
Panch Mahals ...	Dohad Water Supply.
Broach	Broach Water Supply, Jambusar Water Supply.
Surat	Improvements to Surat Water Supply and drainage of the Makai Nala.
West Khandesh ...	Dhulia Drainage and Water Supply, Nandurbar Water Supply.

District.	Name of scheme.
East Khandesh ...	Bhusawal Drainage, Jalgaon Water Supply, Pachora Water Supply.
Nasik	Improvement to Nasik Water Supply, Malegaon Water Supply, Yeola Water Supply.
Thana	Thana Water Supply, Matheran Water Supply, Kopri Colony Drainage, Naupada Mental Diseases Hospital Drainage.
Kolaba	Uran Water Supply, Morba Water Supply.
Poona	Alandi Water Supply, Baramati Drainage.
Satara	Panchgani Water Supply, Vita Water Supply, Satara Water Supply, Islampur Water Supply.
Sholapur... ...	Sholapur Drainage.
Bijapur	Bijapur Water Supply and Drainage Improvements.
Belgaum... ...	Belgaum Water Supply, Gokak Water Supply, Saundatti Water Supply.
Dharwar... ...	Dharwar Water Supply Improvements, Dharwar Police Lines Water Supply and Drainage, Nargund Water Supply.

General.

9. The Local Bodies are realising more fully the necessity for sanitary progress and are approaching the Sanitary Engineer with a view to his carrying out such improvements as are within their means while forming part of comprehensive schemes of sanitary improvement which can be completed gradually as funds permit.

10. During the year under report the Sanitary Engineer to Government visited the following places :—

Jacobabad, Shikarpur, Sukkur, Karachi, Hyderabad, Kapadwanj, Surat, Dhulia, Lonavla, Alandi, Pandharpur, Sholapur, Bijapur, Nargund, Saundatti and Dharwar.

11. The post of the Sanitary Engineer to Government was held by Mr. A. P. Maddocks, B.Sc., M.Inst.C.E., F.R.San.I., during the whole of the year ; the Project Office was in the charge of Mr. J. F. Lobo, L.C.E. ; the Poona Water Works and Poona Drainage Construction Divisions were in charge of Mr. R. A. Collett, A.M.I.C.E., and Mr. V. G. Shete, L.C.E., A.M.I.E.(Ind.), respectively, and Mr. W. C. Dooris was Executive Engineer, Boring Works, till the end of October 1924 when Mr. E. J. Dougherty relieved him.

12. Mr. G. H. Thiselton Dyer, M.A., M.Inst.C.E., held charge of the post of Mechanical Engineer to Government to the end of 28th November 1924; during the remaining period Mr. C. Holliman, A.M.I.Mech.E., held this charge.

During the year under review the Mechanical Engineer to Government inspected pumping installations in the Presidency as below :—

Ahmedabad Water Works.—The condition of this pumping station was as satisfactory as could be expected, but owing to wear and tear the state of engines A. B. and C. gives some cause for anxiety. The question of erecting another new engine to supplement engine D. as a combined stand-by should receive early attention.

Ahmedabad Sewerage Works.—The immediate new works necessary at this station are screens and grit chambers. More pumping units will be required at Jamalpore when new sewers are put down. In this connection the attention of the Municipal Engineer was invited to the recent developments in centrifugal pumps which have made this type of pump useful for sewage pumping.

Dharwar Water Works.—These works were visited at the request of the Municipality and both engines found to be idle, one being in pieces and the other broken down, the town consequently being without water. In a few days one engine was put in working order and the supply resumed.

Hubli Water Works.—A general overhaul was made of one of the engines, new parts being supplied from the Dapuri Workshops. The Municipality were advised to get another engine and pump as the present plant is insufficient and particulars regarding the same were also given.

Hyderabad Water Works.—Hyderabad Water Works were inspected and the new plant at the Fort and Gidu stations were tested. The future pumping arrangements were discussed with the Chief Officer and the Municipal Engineer.

Kirkee Water Supply—(Holkar's Bridge).— Owing to shortage of supply from Pashan Lake and the capacity of the steam plant being insufficient a scheme for installing electrically driven centrifugal pumps was considered.

Nasik Water Works.—Nasik Water Supply pumping station was visited and the general condition of the plant found to be good. Certain repairs were suggested and these were carried through the Dapuri workshops.

Poona City Central Pumping Station (Drainage).—The horizontal Worthington plunger pumps give much trouble, and it has consequently been decided to use centrifugal pumps driven by a cold starting engine burning fuel oil. The plant designed had to deal 60,000 gallons of sewage per hour against a total head of 180 feet. The pump designed is a multi-stage one with three working units mounted on a cast iron plate.

Surat Water Works.—These water works were inspected and the necessary improvements discussed with the Collector, the Chairman of the Committee of Management, the Chief Officer and the Municipal Engineer. Advice was given and recommendations made regarding the alteration of the balancing arrangements of the old engines and the important question of lengthening the suction pipes of the three engines.

Sukkur Water Works.—The water works were inspected in January but owing to the Filter plant not being ready the official trials of the new plant could not be taken till May when the works were again visited, the results obtained from both the engines being very satisfactory. The new design of air pumps fitted to the Sisson Engines which are driving the low lift proved most satisfactory and is considered a great improvement.

Sholapur Water Works.—Sholapur Water Works were visited in April and the question of the installations of new plant was discussed with the President and other officers of the Municipality.

In addition to the above designs and estimates were given for pumping schemes at Kapadwanj, Gokak Water Supply, Sabarmati Jail, Sukkur Barrage Township Right and Left Banks and Jalgaon. A complete set of deep well pumping plant capable of delivering 20,000 gallons per hour against a total head of 105 feet was also designed for Ahmedabad Cantonment Water Supply.

A. P. MADDOCKS,
B.Sc., M.Inst.C.E., M.Inst.W.E.,
F.R.San.I.,
Secretary, Sanitary Board,
Bombay Presidency.

APPENDIX II (*a*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1924.

I.—Summary.

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with out-going and in-coming vessels as well as those lying in the harbour and docks during the year ending 31st December 1924.

Seven hundred and thirty-three vessels of all classes with 171,809 crew and passengers were examined during the year. Of this, the number of troops examined was 11,222.

The clothing and bedding and other articles of 73,481 members of crews and passengers of out-going and in-coming vessels and of members of crews of vessels lying in the port were disinfected. Of these 54,831 were Asiatic and African members of crews third class or deck European and Indian passengers, 11,738 were pilgrims who left the Port of Bombay for ports out of India, and 6,912 were members of crews and passengers who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while in the port. In addition to the above-mentioned numbers, 1,268 baggage coolies and some stevedores men were disinfected in order to enable certain vessels to work cargo for a few hours after medical inspection and disinfection of their crews and passengers.

Twenty-seven vessels on which cases of infectious diseases occurred were disinfected. Out of the 13 vessels which carried pilgrims to Jeddah 10 were thoroughly cleansed and freed from rats by means of sulphur dioxide gas generated in the Port Clayton Apparatus. Of the remaining three, two pilgrim ships were fumigated by their own Clayton machines which were provided on board the vessels and one was fumigated by means of buckets at Karachi. Besides the 13 out-going pilgrim ships, 7 other vessels were fumigated. In addition to this number, 20 vessels were fumigated by the British India Steam Navigation Company's apparatus. Sixty-eight persons who had been in contact with small-pox were vaccinated. In addition to this number, 9,483 out-going pilgrims were vaccinated by a special Vaccinating Staff lent by the Municipality, under the direction of the Police Commissioner.

II.—Out-going Vessels.

2. In accordance with Government Notification, General Department, No. 1713, dated the 15th March 1917, the medical examination of all vessels, crews and passengers, proceeding to ports out of

India, and the disinfection of the clothing and bedding of all Asiatic and African members of crews, of all passengers travelling third class who were not provided with cabin accommodation, of fourth class and deck passengers and of all Asiatic and African servants who sailed on such vessels, were carried out before they left the Port of Bombay.

3. Five hundred and ninety-six outward bound vessels with 68,871 crew and 52,179 passengers, or a total of 121,050 persons, exclusive of troops who were examined by the Military Embarkation Staff, were inspected as against 645 vessels with 75,439 crew and 58,984 passengers or a total of 134,423 persons, during the preceding year.

4. The bedding, boxes and suspected articles of clothing, etc., of 37,269 Asiatic and African members of crews, of 17,562 third class, fourth class and deck passengers and of 11,738 pilgrims who sailed on steamers bound for ports out of India, were disinfected.

5. In certain cases the Asiatic and African members of crews of vessels which merely called at Bombay to land mails and passengers and which sailed on the same day for a Port out of India, were exempted from the disinfection of their clothing and bedding.

6. Four vessels had cases of small-pox, influenza, and chicken-pox, among their crews and passengers within 12 days prior to their departure from this port. The Bills of Health granted to these vessels mentioned the diseases which had occurred on board, as well as the measures which had been taken before their departure for the prevention of the spread of infection on board or its introduction at other ports.

III.—In-coming vessels.

7. In accordance with the rules prescribed under Government Notification, No. 1713, dated the 15th March 1917, medical inspection and disinfection of vessels which were actually infected or suspected of being infected were carried out. All Pilgrim-Ships and all vessels which arrived from East African Ports were also inspected on arrival.

8. One hundred and thirty incoming vessels of various kinds, with crews aggregating 13,727 persons and 25,492 passengers and pilgrims, were inspected during the year. Of these 130 vessels 20 (including Hired Transports) were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. In connection with these vessels there were 9 cases of small-pox, 29 cases of measles, 20 cases of chicken-pox, 3 cases of jigger, 8 cases of influenza and 7 cases of pneumonia. The cases of influenza occurred among the passengers on one vessel, the s.s. "Naldera". The cases which occurred on Hired Transports were dealt with by the Military Authorities on landing in Bombay, and those among the crews and passengers of other vessels by the Port Health Officer. The cases enumerated above, as having

occurred among the troops were removed to the Military Hospitals on shore for treatment, while those detected among the European Crews were removed to the St. George's Hospital and those among the Asiatic and African members of Crews to the Jamsetjee Jeejeebhoy, Gokuldas Tejpal, Arthur Road, and Maratha Hospitals. The ships and the clothing and bedding of their crews were disinfected. Twelve vessels with 8,397 pilgrims arrived from Jeddah. One of these vessels had one case of small-pox on arrival in Bombay.

IV.—Infectious Diseases on Vessels Arriving and Departing and in the Harbour and Docks.

9. Tabular Statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving at or departing from the Port of Bombay or lying in the Harbour or Docks.

It will be seen that 76 cases occurred on incoming vessels as follows:—Nine cases of small-pox, 29 cases of measles, 20 cases of chicken-pox, 3 cases of jigger, 8 cases of influenza and 7 cases of pneumonia. Ten cases of small-pox, 2 cases of chicken-pox-and 11 cases of pneumonia were reported to have occurred on vessels after their departure from this port. Of these cases, three cases of small-pox—one case among passengers sailed from Bombay and two cases among passengers sailed from Porebunder were reported to have been landed at Mombassa and one case of small-pox and four cases of pneumonia were landed at Aden.

10. Tabular statement No. 2 gives separately the details of infectious diseases on vessels in the harbour and docks. The clothing and bedding of the crews of those vessels aggregating 318 persons were disinfected.

V.—Disinfection and Fumigation of Ships.

11. During the year under report 47 vessels of all classes were disinfected and fumigated.

12. Of the 47 vessels referred to in the foregoing paragrapha, 20 vessels were fumigated by means of the Clayton process. Of this number, 12 were outward-bound pilgrim vessels, 1 was rat-infected, 4 were fumigated at the request of the owners and 3 were fumigated under the regulations for plague. In addition to these vessels, the British India Steam Navigation Company fumigated 20 steamers by their own apparatus and one ship s. s. "Frangistan" was fumigated at Karachi in order to enable her to convey pilgrims from Bombay to Jeddah.

13. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection. 750 bundles containing clothing and bedding of this kind were disinfected, as against 926 bundles during the preceding year. The clothing of 1,268 baggage coolies to work cargo on outward bound vessels after the disinfection of their crews and or after obtaining Bills of Health, was disinfected at the request of the Commanders and Agents of the vessels.

VI.—General Health of Shipping.

14. During the year under report 1,845 persons connected with the shipping were admitted into the various hospitals in the city. St. George's Hospital admitted 402 European patients of whom 13 died, 382 were discharged cured, and 7 remained under treatment after 31st December 1924. The Jamsetjee Jeejeebhoy Hospital admitted 923 Asiatic patients of whom 65 died, 858 were discharged cured. The Gokuldas Tejpal Hospital admitted 496 Asiatics of whom 23 died and 405 were discharged cured and 68 remained under treatment and the Arthur Road and Maratha Hospitals admitted 24 patients of whom 2 died, and 22 were discharged cured.

15. No deaths occurred in connection with the cleansing of bilges of ships during the year. There were 424 accidents on board of vessels which were lying in the harbour and docks. Of these 50 proved fatal.

VII.—Red Sea Pilgrim Traffic.

A—Outward Pilgrim Traffic.

16. In accordance with the orders of the Government of India in force, the Outward Pilgrim Traffic of the year under report began on the 5th April 1924. Before the Pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process.

The pilgrims were medically inspected and their clothing and bedding disinfected before they were allowed to embark.

17. The names of the ships, the numbers of pilgrims carried by them and the dates on which they left Bombay for Jeddah *via* Karachi with the exception of seven which sailed direct for Jeddah are given below :—

No.	Name of Vessel.	Number of Pilgrims sailed.	Date of Departure 1924.
1	S.S. "Frangistan"	1,197	23rd March 1924.
2	,, "Shuja"	861	30th March ,,
3	,, "Shustar"	354	15th April ,,
4	,, "Tangistan"	236	18th April ,,
5	,, "Jeddah"	613	30th April ,,
6	,, "Shuja"	569	16th May ,,
7	,, "Sultania"	533	16th May ,,
8	,, "Englistan" ...	1,885	19th May ,,
9	,, "Dara"	1,143	30th May ,,
10	,, "Homayun"	943	10th June ,,
11	,, "Jeddah"	230	12th June ,,
12	,, "Englistan"	1,623	14th June ,,
13	,, "Sultania"	1,551	22nd June ,,
	Total number of pilgrims ...	11,738	

18. In addition to the pilgrims mentioned in the foregoing table the following vessels carried 118 pilgrims to intermediate Ports in the Red Sea for Jeddah during their voyage to Europe, etc. :—

No.	Name of vessel.	Number of pilgrims sailed.	Date of departure, 1924.
1	S.S. "Circassia"	19	12th February 1924.
2	S.S. "Olympia"	8	21st February 1924.
3	S.S. "Jeddah"	92	8th March 1924.
4	S.S. "Varsova"	4	21st March 1924.
	Total ...	118	
	Grand Total ...	11,856	

19. The classification of pilgrims as far as it is available is as follows :—

368	Bombay Presidency (including Sind).	577	Native States.
224	Bombay City.	10	Nepal.
415	Madras Presidency.	87	Malay State. (British).
5,242	Bengal Presidency.	67	Dutch (Java).
441	Assam Province.	178	Persian Gulf.
118	Bihar and Orissa.	30	Persia.
675	Punjab and North-West Frontier.	72	Mesopotamia.
1,014	United Provinces and Oudh.	102	Russia.
73	Central Provinces.	916	China.
51	Central India.	467	Afghanistan.
36	Rajputana.	21	Baluchistan.
83	Burmah.	371	Arabia.
21	Ceylon.	6	Africa.
2	Andaman Island.	7	France.
		182	Unclassified.
8,763		3,093	

Total ... 11,856

20. There was an out-break of fire on the s.s. "Frangistan" which left Bombay on 23rd March 1924, causing her to be lost in the Red Sea between Kamaran and Jeddah. The Hajis and 16 passengers for Genoa were transferred to another ship which proceeded to Port Soudan. The Hajis were subsequently taken to Jeddah.

21. Nine thousand four hundred and eighty-three pilgrims were vaccinated before starting by a special vaccinating staff placed

at the disposal of the Police Commissioner by the Municipality. Besides these, some pilgrims from other provinces and Native States had been vaccinated before leaving their homes for Bombay.

22. Four cases of small-pox, one case of chicken-pox and 11 cases of pneumonia were reported to have occurred on six pilgrim ships. Of these, two cases of small-pox were removed to the Infections Diseases Hospital at Aden and 2 were female pilgrims who were detected just convalescing from small-pox after landing at the Lazaretto at Kamaran. These had escaped the notice of the doctor on board as they remained in purdah and the female attendant had not reported the matter to the Doctor. One case of chicken-pox was landed at Kamaran. Of the eleven cases of pneumonia which occurred on vessels during voyage nine proved fatal.

23. Thirty-seven deaths occurred at sea among pilgrims on out-going ships. They were chiefly due to old age, pneumonia, cardiac failure, coma, malaria, pluerisy, diarrhœa and phthisis.

24. The Quarantine Camp at Kamaran was opened with the arrival of the first pilgrim ship there—the s.s. "Roepat" from Macassar on the 23rd January and closed with the departure of the s.s. "Halal" from Aden on the 29th June. The necessary Medical Staff required for the camp was provided by the Surgeon-General with the Government of Bombay and they were despatched to Kamaran by passenger and pilgrim ships.

25. In his reports to Government submitted through the Military Administrator, Kamaran, the Director of the Kamaran Lazaretto reported the Hygienic conditions on board the pilgrim ships as good and in some cases as excellent.

B—Inward Pilgrim Traffic.

26. During the year under report 8,397 pilgrims arrived from Jeddah in 12 vessels as tabulated in Statement No. 3 which is appended to this report.

27. One hundred and eight deaths occurred among the pilgrims during the return voyage. The causes of deaths are chiefly attributed to Senile Debility, Phthisis, Dysentery, Sprue, Bright's Disease, Diarrhœa, Heart Stroke, Privation, etc.

28. One case of small-pox was removed from a pilgrim ship on arrival at Bombay, to the Arthur Road Hospital for treatment.

VIII.—Sanitary State of the Harbour and Foreshore.

29. The sanitary state of the harbour and the various bandars and docks was fair.

IX.—Cholera, Small-pox, Plague, Acute Pneumonia and Influenza in the City of Bombay.

30. During the year under report 34 deaths from Cholera, 1,242 deaths from small-pox, 409 deaths from plague, 9,764 deaths from pneumonia (all forms), and 118 deaths from influenza occurred in

the City of Bombay during the year 1924 as against 189 deaths from cholera, 479 deaths from small-pox, 1,319 deaths from plague, 9,586 deaths from acute pneumonia and 250 deaths from influenza during the preceding year.

X.—Small-Pox.

31. A severe out-break of small-pox in Bombay City occurred during the first half of the year. A few cases of small-pox developed on ships engaged in the passenger trade to East Africa. The quarantine measures imposed in East African Ports are such that the shipping company suffered severely financially and a large number of Indian passengers found themselves put to great expense, delay, and inconvenience. So long as Bombay suffers from severe epidemics of this disease, the shipping leaving the port is bound to suffer.

XI.—Malaria.

32. An unusually severe outbreak of malaria affected Bombay City in September and October. Several ships occupying No. 1, 2 and 3 berths in Alexandra Dock late in September and early in October were severely infected and several deaths occurred after the vessels had left the port. A study of the local conditions points to a number of tenement dwelling houses in which the inhabitants suffered severely as being the probable source of the infection. These houses are situated in the municipal area immediately outside the dock wall.

XII.—General.

33. The undersigned was in charge of the Port Health Department throughout the year under report.

34. The members of the Medical, Clerical, and Sanitary Staffs performed their duties satisfactorily.

W. M. HOUSTON,
M.B., D.P.H.,
Lieut.-Col., I.M.S.,
Health Officer of the Port

Bombay Port Health Office,
New Customs House,
Dated 31st March 1925.

TABLE No. 1.

The following Tabular Statement gives a summary of the Shipping of the Bombay Port and work done in connection therewith for the year ending 31st December 1924 :—

Vessels including Country Craft.	Number of vessels inspected.	Number of persons inspected.	No. of Asiatic and African crew and 3rd class or Deck Passengers disinfected.	Number of vessels.		Number of persons.		Diseases and cases of each.									
				Disinfected.	Fumigated.	Vaccinated.	Inoculated.	Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jiggor.	Scarlatina.	Influenza.	Pneumonia.	Cerebro Spinal Fever.
Entered ...	180	39,219	6,594	20	5	...	...	...	...	9	29	20	3	...	8	7	...
Left ...	596	132,272	66,569	...	13	9,483	...	...	...	10	...	2	...	...	...	11	...
In Harbour during the year.	7	318	318	7	9	68	...	1	...	4	...	4	...	...	...	2	...
Total ...	733	171,809	73,481	27	20	9,551	...	1	...	23	29	26	3	...	8	20	...
Total for 1923 ...	794	178,764	83,239	42	22	13,416	5,965	3	11	23	15	16	6	1	34	6	...

TABLE No. 2.

The following table includes all Steam ships, Square-rigged Vessels and Native Sailing Craft which became infected while lying in the Port of Bombay during the year 1924 :—

Months 1924.	No. of persons who were infected with infectious disease in the Docks and Bandars.			Total number of infected vessels.	Total No. of infectious Diseases in the Bombay Harbour.								No. of crew disinfected.
	Plague.	Cholera.	Pneumonia.		Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Influenza.	Pneumonia.	Scarlet Fever.	
January ...	...	...	...	...	...	...	...	...	...	...	...	...	...
February ...	...	...	...	...	...	...	...	...	...	...	...	...	...
March ...	...	...	...	1	1	...	...	...	...	...	...	...	41
April ...	...	...	...	3	...	...	3	...	...	...	...	...	68
May ...	...	...	...	...	...	...	...	...	...	...	...	...	...
June ...	...	...	...	1	...	...	...	...	1	...	...	...	104
July ...	...	...	...	...	...	...	...	...	3	...	...	...	105
August ...	...	...	...	...	...	...	...	...	...	...	...	...	...
September ...	...	...	...	1	...	...	...	...	...	...	1	...	...
October ...	...	...	...	...	...	...	...	...	...	...	...	...	...
November ...	...	...	...	...	...	...	...	...	...	...	...	...	...
December ...	...	...	1	1	...	...	1	...	...	...	...	...	...
Total ...	...	...	1	7	1	...	4	...	4	...	1	...	318

TABLE No. 3.

Statement showing the number of pilgrims who arrived in Bombay from Jeddah by vessels during the year 1924.

No.	Name of Ship.	Date of arrival 1924.	Number of crew inspected.	Number of pilgrims inspected.	Number of deaths during voyage.
1	S.S. "Englistan" ...	31st July ...	114	2,028	20
2	S.S. "Homayun" ...	3rd August ...	100	875	15
3	S.S. "Alavi" ...	8th ,, ...	76	959	4
4	S.S. "Gorgistan" ...	25th ,, ...	70	953	7
5	S.S. "Sultania" ...	1st September ...	110	579	15
6	S.S. "Zayani" ...	5th ,, ...	90	489	24
7	S.S. "Homayun" ...	6th ,, ...	97	1,033	11
8	S.S. "Alavi" ...	11th October ...	94	926	8
9	S.S. "Nordkyn" ...	24th ,, ...	38	102	...
10	S.S. "Jehangir" ...	30th ,, ...	94	334	4
11	S.S. "Alavi" ...	17th November ...	80	59	...
12	S.S. "Jehangir" ...	11th December ...	89	80	...
	Total ...	.....	1,052	8,397	108

No.	Name of Ship.	Number of cases of infectious disease on Board.		Remarks.
		On arrival.	During voyage.	
1	S.S. "Englistan" ...	.....	.....	
2	S.S. "Homayun" ...	1 Small-pox ...	.....	
3	S.S. "Alavi" ...	.....	.....	
4	S.S. "Gorgistan" ...	.....	.....	
5	S.S. "Sultania" ...	.....	.....	
6	S.S. "Zayani" ...	.....	.....	562 pilgrims landed at Karachi.
7	S.S. "Homayun" ...	.....	.....	
8	S.S. "Alavi" ...	.....	.....	
9	S.S. "Nordkyn" ...	.....	.....	
10	S.S. "Jehangir" ...	.....	.....	206 pilgrims landed at Karachi.
11	S.S. "Alavi" ...	.....	.....	
12	S.S. "Jehangir" ...	.....	.....	41 pilgrims landed at Karachi.
	Total ...	1 Small-pox ...	.....	.....

APPENDIX II (*b*).

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT, KARACHI, FOR THE YEAR ENDING 31ST DECEMBER 1924.

I.—Outgoing Vessels.

During the year under report 521 outward-bound steam vessels were inspected and given Bills of Health as against 442 during the preceding year.

Of this number 345 were proceeding to Aden, the Red Sea and Europe, and 176 to other Ports out of India including the Persian Gulf.

In addition, 5 steamers which called at Karachi with pilgrims who were returning to Bombay *viâ* Karachi from Jeddah had their Bills of Health duly endorsed when proceeding to Bombay after their crews and passengers had been medically inspected.

Bills of Health were also given after medical inspection to 326 country boats as against 330 country boats during the preceding year.

The Indian crews as well as deck and third class passengers without cabin accommodation of steamers and country crafts proceeding to Ports out of India were medically inspected and their clothing, bedding, boxes and other articles disinfected at the Port Health Disinfecting Station, Kiamari, prior to their departure from this Port.

II.—Incoming Vessels.

During the year under report 72 steam vessels and 7 country boats were inspected for the existence of infectious diseases.

Of these 72 steamers, 9 pilgrim vessels arrived from Jeddah *viâ* Aden, 44 from East African Ports and the remaining 19 from various other Ports. The 7 country boats all arrived from East African Ports.

III.—Synopsis of Inspection and Disinfection Performed.

The following tabular statement shows the number of vessels crews and passengers inspected during the year:—

—	Vessels.			Crews and Passengers.		
	Steamers.	Country crafts.	Total.	Of Steamers.	Of Country crafts.	Total.
Incoming	72	7	79	14,376	84	14,460
Outgoing	521	326	847	70,294	3,995	74,289
					Total ...	88,749

Out of the total number (88,749) of crews and passengers who were medically inspected as shown above, 53,273 persons also had their clothing, bedding, boxes and other articles disinfected.

IV.—Miscellaneous Disinfection.

On several occasions during the year clothing, bedding, etc., which was sent for disinfection from the Military Department, Manora, Customs Department, Karachi, were duly disinfected by steam in the "Equifex" stoves.

V.—Plague.

On the 2nd January 1924 telegraphic information was received from the Political Agent, Muscat, to the effect that a death from Plague occurred amongst the deck passengers of the s.s. "Bankura" at Muscat on 1st January 1924. The patient was embarked at Dubai for Bombay on the 30th December 1923. Accordingly, on arrival of the s.s. "Bankura" at Karachi on the 2nd January 1924 the crew and passengers were medically inspected and found to be free from plague. The kit, etc., of the crew and passengers were duly disinfected here and a telegram was despatched to Port Health Officer, Bombay, for information as the ship continued her voyage to that Port.

The s.s. "City of Harvard" arrived here from Bombay on the 23rd February 1924 and reported a death of a fireman from plague on the night of 24th February 1924 whilst in harbour. All precautionary measures, *i.e.*, Fumigation of ship, disinfection of clothing, bedding, boxes, etc., of the Asiatic crew was duly carried out. The entire crew Europeans and Asiatics were inoculated against plague. Rats trapped on board the ship were found to be free from B. Pestis on Bacteriological examination. No further cases occurred on board up to the day of sailing from here.

The s.s. "Varela" which arrived at Karachi from the Persian Gulf on the 8th May 1924 reported that a case of plague amongst the deck passengers was landed at Bushire on the 5th May 1924. On arrival here her crew and passengers were medically inspected and found to be well. All precautionary measures, *i.e.*, disinfection of the clothing, bedding, etc., of the crew and deck passengers was duly carried out at the Port Health Disinfecting Station, Kiamari, Telegraphic information to this effect was therefore sent to the Port Health Officer as the ship continued her voyage to that Port.

VI.—Cholera.

No cases of this disease were reported or detected during the year.

VII.—Small-Pox.

Seven cases of small-pox were removed from incoming vessels to the Epidemic Diseases Hospital, Karachi, for treatment, *viz.*, one from the s.s. "British Soldier" on 5th January, one from the s.s. "Manila" on 28th March. One from the s.s. "Hatimeera" on 5th April, one from the s.s. "Inkula" on 25th April and one from the s.s. "Kintyra" one 28th April 1924. All necessary precautionary

measures, *i.e.*, disinfection of the crew and infected parts of the ships including vaccination were duly carried out. 308 crew of the above mentioned steamers were re-vaccinated. Telegraphic information was sent to Port Health Officer, Bombay, for information as the "British Soldier" "Bankura" and s.s. "Manila" were continued their voyage to Bombay.

VIII.—Chickenh-Pox.

Three cases were removed to hospital from three incoming vessels, *viz.*, one from the s.s. "Bradburn", one from the s.s. "Modassa" and one from the s.s. "Badarpur" during the year. The usual precautionary measures (disinfection of kit and quarters, etc.) were carried out on board the vessels concerned and a telegram was despatched to Port Health Officer, Bombay, as the "Modassa" continued her voyage to Bombay.

IX.—Measles.

During the year no cases of this disease were reported or detected.

X.—Scarlet Fever.

The Troop Ship "Marglen" which arrived here from Southampton on the 9th February 1924 reported one case of convalescent Scarlet Fever amongst the Military passengers. There were no other cases of infectious diseases on board, infected clothing, bedding, etc., was disinfected on board, by ship's steam disinfector, cabins, etc., were thoroughly disinfected.

XI.—Parotitis (Mumps), Yellow Fever, Jigger, Sleeping Sickness, Acute-Pneumonia, Cerebro-Spinal Meningitis and Influenza.

No cases of these diseases were detected during the year.

XII.—Non-Notifiable Diseases.

During the year under report 4 cases of fever with high temperature were detected in the course of the usual medical inspection of crews and passengers before embarkation and were sent for treatment to the Civil Hospital.

The Master of the s.s. "Axenfels" on arrival from Bombay on 13th October 1924 reported an unusual type of high fever amongst his crew which on investigation was found to be malaria. 18 of the crew were sent to the Epidemic Diseases Hospital, Karachi, for treatment. Besides this 14 others were segregated for observation in the hospital in consultation with the Captain by Mr. B. F. Khambatta, M.B., B.S., who was then the Port Health Officer of Karachi. The ship was thoroughly fumigated by means of the Clayton Apparatus before sailing. The ship sailed on 21st October 1924 to Europe with a new Indian crew as the original German crew was in hospital under treatment and observation.

XIII.—Death from Non-Notifiable Diseases.

During the year, 11 deaths from various causes (*e. g.*, 6 from heart diseases, 1 from Acute Bronchitis, 1 from Pneumonia, 1 from general

debility and 2 from Malaria on s.s. "Axenfels") were reported as having occurred on board or vessels either in Karachi Harbour or during the voyage to Karachi.

XIV.—Emigrants.

No emigrants embarked from this port during the year.

XV.—Red Sea Pilgrim Traffic.

A.—Outward Pilgrim Traffic.

In accordance with the Orders of the Government of India in force, the Outward Pilgrim Traffic of the year under report began on the 7th March 1924, 10 steamers carrying 6,204 pilgrims who embarked at Karachi sailed hence for Jeddah *vid* Aden during the Haj Season of 1924.

All pilgrims were medically inspected and their clothing and bedding disinfected before they were allowed to embark.

The name of the steamers, the numbers of pilgrims carried by them and the dates on which they left Karachi for Jeddah *vid* Aden are given bellow :—

No.	Name of ship.	Number of pilgrims embarked at Karachi.	Date of departure.
1	S.S. "Shuja"	433	4th April 1924.
2	S.S. "Shushtar"	430	19th do.
3	S.S. "Tangistan"	702	23rd do.
4	S.S. "Jeddah"	574	5th May 1924.
5	S.S. "Shuja"	482	21st do.
6	S.S. "Sultania"	1,001	21st do.
7	S.S. "Tangistan"	805	23rd do.
8	S.S. "Dara"	205	4th June 1924.
9	S.S. "Jeddah"	1,004	17th do.
10	S.S. "Englistan"	568	18th do.
	Total ...	6,204	

Out of 10 steamers 1 steamer, *viz.*, s.s. "Tangistan" was de-ratised by means of the Clayton Apparatus as this steamer sailed direct from Karachi to Jeddah *vid* Aden whilst the remaining 9 were fumigated in Bombay before sailing to Jeddah *vid* Karachi.

The s.s. "Sultania" arrived at Karachi from Bombay with pilgrims on the 18th May 1924 reported one death from general debility on the 19th May 1924 amongst the pilgrims.

B.—Inward Pilgrim Traffic.

The following table shows the number of pilgrims who returned to Karachi from Jeddah, the names of the ships in which they travelled, and other particulars :—

No.	Names of ships.	Date of arrival.	No. of crew.	No. of pilgrims for Karachi.	No. of deaths during voyage.	No. of cases of infectious disease during the voyage or on arrival.
1	S. S. " Gorgistan " ...	31st July 1924 ...	78	977	15	Nil.
2	,, " Dara " ...	Do. ...	106	1,205	17	Nil.
3	,, " Sultania " ...	1st August 1924 ...	107	1,514	18	Nil.
4	,, " Dara " ...	26th August 1924 .	105	1,435	7	Nil.
5	,, " Sultania " ...	29th August 1924 .	110	970	12	Nil.
6	,, " Zayani " ...	2nd September 1924.	90	562	19	Nil.
7	,, " Jehangir " ...	25th October 1924.	94	206	4	Nil.
8	,, " Alavi " ...	13th November 1924.	80	27	.....	Nil.
9	,, " Jehangir " ...	7th December 1924.	89	41	.....	Nil.
		Total ...	859	6,937	92	Nil.

Ninety-two deaths which occurred during the voyage or on arrival in Karachi Harbour were reported by the Medical Officers of the ships concerned as being due to general debility, diarrhœa, inanition, hardship and starvation.

The general physical condition of many of returning pilgrims was very poor. Several pilgrims stated that they had had to undergo severe hardships and that there was a great scarcity of wholesome drinking water. These causes are responsible for the debilited condition of the returning pilgrims. Many of these pilgrims were nothing more than living skeletons.

On arrival of the pilgrimships many of the pilgrims were sick in the ships' hospitals suffering from general debility and senile decay.

XVI.—Clayton Apparatus.

During the year 5 steamers were fumigated, *i.e.*, 3 by burning sulphur in buckets (as the Clayton Apparatus was out of commission on account of the barge on which it was fitted being declared unseaworthy) as sanctioned in Commissioner in Sind's Memorandum No. 5493-G., dated 8th April 1924 and 2 by means of the Clayton Apparatus. Three steamers at the request of the Agents, 1 for plague and 1 for malaria.

XVII.—Sanitary State of the Harbour.

The sanitary state of the harbour was satisfactory.

XVIII.—Plague, Cholera, Small-Pox, Measles, Chicken-Pox, Influenza and Acute-Pneumonia in the City of Karachi.

During the year under report 117 deaths from plague, 115 deaths from small-pox, 6 deaths from Influenza, 381 deaths from measles and 693 deaths from acute-pneumonia and *nil* from cholera and chicken-pox occurred in the City of Karachi as against 466 deaths from plague, 37 deaths from small-pox, 25 deaths from influenza and 774 deaths from measles during the previous year.

XIX.—Staff.

I was in charge of the Port Health Department, Karachi, from 1st January to 24th January 1924, Assistant Surgeon J. E. Howard, I.M.D., Assistant Port Health Officer, Karachi, from 25th to 29th January 1924, Mr. B. F. Khambatta, M.B., B.S., from 30th January to 3rd December 1924 and again I took over charge from 4th December 1924.

Mr. B. F. Khambatta, M.B., B.S., proceeded to England on 15 months' leave to study for the Diploma of Public Health as per Government Resolution, General Department, No. 20 (16), dated 3rd September 1924.

During my period of office I found the entire staff worked most satisfactorily.

H. F. OTTO, Lieut., I.M.D.,

Acting Health Officer of the Port of Karachi.

Port Health Office, Kiamari,

Karachi, dated 9th March 1925.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

APPENDIX II (*c*).

Annual Report of the Health Officer of the Port of Aden for the year 1924.

I.—General Remarks.

One thousand three hundred and forty vessels and rigged vessels were granted Bills of Health during the year.

Of the above number 950 were sailing under the British flag and 390 under foreign flags. Bills of Health issued having had cases of Infectious Diseases on board were annotated according to circumstances of each case.

One thousand two hundred and nine Bills of Health were issued to Dhows during the year.

The accompanying table A gives a list of vessels on board of which infectious diseases existed on arrival. In the case of these vessels all sanitary precautions were taken to prevent the spread of disease.

The following cases of infectious diseases were landed from the Shipping :—

Small Pox	... 7	Chicken Pox	... 3
Measles	... 26	Pneumonia	... 4

II.—Pilgrim Traffic.

Twenty-three ships carrying pilgrims passed through the Port of Aden during the year. All were medically examined, but they were not granted pratique.

Year.	No. of Ships.	No. of Pilgrims.	No. of deaths.
1924	23	26,110	34

III.—Table A.

The following is the list of vessels on board of which cases of infectious diseases existed on arrival at this port during the year :—

Date.	Name of Ship.	Nationality.	From	To	No. of cases.	Remarks.
6th February 1924.	S.S. "Modasa" ...	British.	London ...	Calcutta .	2 Mls. ...	Treated O. B.
8th March 1924.	,, "Kaiser-i-Hind."	Do. ...	Do. ...	Bombay ...	19 Mls. ...	Do.
9th March 1924.	,, "Chindwin".	Do. ...	Rangoon .	Liverpool.	2 S. P. ...	Landed.
19th March 1924.	,, "Caledonia",	Do. ...	Bombay...	London ...	1 S. P ...	Do.
21st March 1924.	,, "Aquileia" .	Italian.	Karachi ...	Suez ...	2 S. P. ...	Do.
27th March 1924.	,, "Modasa" .	British.	Calcutta .	Do. ...	1 C. P. ...	Treated O. B.
6th April 1924 ...	,, "Duchess Da Osta .	Italian.	Massawa .	Colombo .	1 Mls. ...	Do.
16th July 1924 ...	,, "Morea" ...	British.	China ...	London ...	2 Mls. ...	Do.
25th July 1924 ...	,, "Ethiopie".	French.	Djibouti...	Djibouti .	1 C. P. ...	Do.
11th October 1924.	,, "Karmala" .	British .	London ...	Yokohama	1 C. P. ...	Landed.
Do. ...	,, "Maloja" ...	Do. ...	Do.	Australia.	1 C. P. ...	Treated O. B.
22nd. October 1924.	,, "Moldavia".	Do. ...	Australia .	London ...	2 Ger Mls....	Do.
1st December 1924.	,, "Norman"...	Do. ...	Rangoon .	Cape Town	1 C. P. ...	Do.
12th December 1924.	,, "Nevasa" ...	Do. ...	Calcutta...	Suez ...	1 S. P. ...	Landed.
18th December 1924.	,, "City of Durham".	Do. ...	Penang ...	Hamburg.	1 S. P. ...	Do.

N.B.—S. P. stands for Small-Pox, C. P. stands for Chicken-Pox and Mls. stands for Measles.

IV.

The following are the names and other information regarding the Pilgrim ships which passed through Aden during the year under report :—

Date.	Name of ship.	Nationality.	From	To	Number of		
					Pilgrims.	Infectious cases.	Deaths.
10th April 1924	S.S. "Shuja" ...	British	Bombay...	Jeddah ...	1,290	...	...
26th April 1924	,, "Shushtar".	Do. ...	Do. ...	Do. ...	784	...	...
29th April 1924	,, "Tangistan".	Do. ...	Karachi...	Do. ...	935	...	...
11th May 1924 ...	,, "Jeddah".	Do. ...	Bombay...	Do. ...	220	...	...
26th May 1924 ...	,, "Englistan".	Do. ...	Do. ...	Do. ...	1,880	...	1
28th May 1924 ...	,, "Shuja" ...	Do. ...	Do. ...	Do. ...	1,104	Pneumonia.	...
29th May 1924 ...	S.S. "Sultania".	British	Bombay...	Jeddah ...	1,534	...	1
31st May 1924 ...	,, "Tangistan".	Do. ...	Do. ...	Do. ...	804	...	1
1st June 1924 ...	,, "Celebes".	Dutch...	Batavia ...	Do. ...	186	...	...
12th June 1924...	,, "Dara" ...	British	Bombay...	Do. ...	1,392	Pneumonia.	4
22nd June 1924 ...	,, "Homayun".	Do. ...	Do. ...	Do. ...	989	...	4
26th June 1924...	,, "Jeddah".	Do. ...	Do. ...	Do. ...	1,285	...	4
Do. ...	,, "Englistan".	Do. ...	Do. ...	Do. ...	2,188	...	...
1st July 1924 ...	,, "Sultania".	Do. ...	Do. ...	Do. ...	1,547	...	...
25th July 1924 ...	,, "Dara" ...	Do. ...	Jeddah ...	Karachi...	1,228	...	6
Do. ...	,, "Sultania".	Do. ...	Do. ...	Bombay...	1,525	...	3
26th July 1924 ...	,, "Homayun".	Do. ...	Do. ...	Do. ...	883	...	...
30th July 1924 ...	,, "Jehangir",	Do. ...	Do. ...	Persian Gulf.	1,155	...	4
2nd August 1924.	,, "Alavi" ...	Do. ...	Do. ...	Bombay...	940	...	...
22nd August 1924.	,, "Sultania".	Do. ...	Do. ...	Do. ...	1,530	...	4
4th October 1924.	,, "Alavi" ...	Do. ...	Do. ...	Do. ...	1,190	...	...
10th October 1924.	,, "Jehangir".	Do. ...	Do. ...	Do. ...	541	...	...

V.—Establishment.

Major E. S. Phipson, M.D., D.P.H., D.T.M. & H., I.M.S., Health Officer of the Port, Aden, from 1st January to 31st December 1924.

VI.—Office Establishment.

Mr. Ahmed Ismail, Port Health Clerk from 1st January to 1st November 1924. He was dismissed on the 2nd November 1924

for criminal breach of trust, and Mr. Othman Abdul Kader appointed temporarily from 5th December 1924 to 11th December 1924.

Mr. E. Naser held the appointment of Port Health Clerk from 12th December 1924 forenoon.

Peon Omer Abubaker from 1st January to 31st December 1924.

VII.—Launch Establishment.

Driver Hussain Noman from 1st January to 31st December 1924. Stoker Abdoo Noman from 1st January to 31st August 1924. He was granted leave on average pay for 1 month and 6 days and half average pay for 4 months and 24 days with effect from 1st October 1924 forenoon. Hael Noman was appointed to act in his place from 1st October 1924.

Succani Mohamed Magon from 1st January to 31st December 1924.

Lascar Ali Magon from 1st January to 31st March 1924 afternoon. He was granted leave for 4 months on average pay and 2 months on half average pay from 1st April 1924 forenoon.

Mohamed Hasson (outsider) was appointed to act as a Lascar in his place from 1st April 1924.

VIII.—Disinfecting Stove.

A fireman was retained for the care of the Disinfecting Stove during the year in accordance with Government Order, General Department, No. 4607 of 18th April 1920.

E. S. PHIPSON,
M.D. (Lond.), D.P.H., D.T.M. & H.,
Major, I.M.S.,
Health Officer of the Port.

Aden, dated 8th March 1925.

APPENDIX III.

The following table shews year of completion of drainage or water-works and a comparison of mean death-rate in the towns concerned for periods preceding and subsequent to installation.

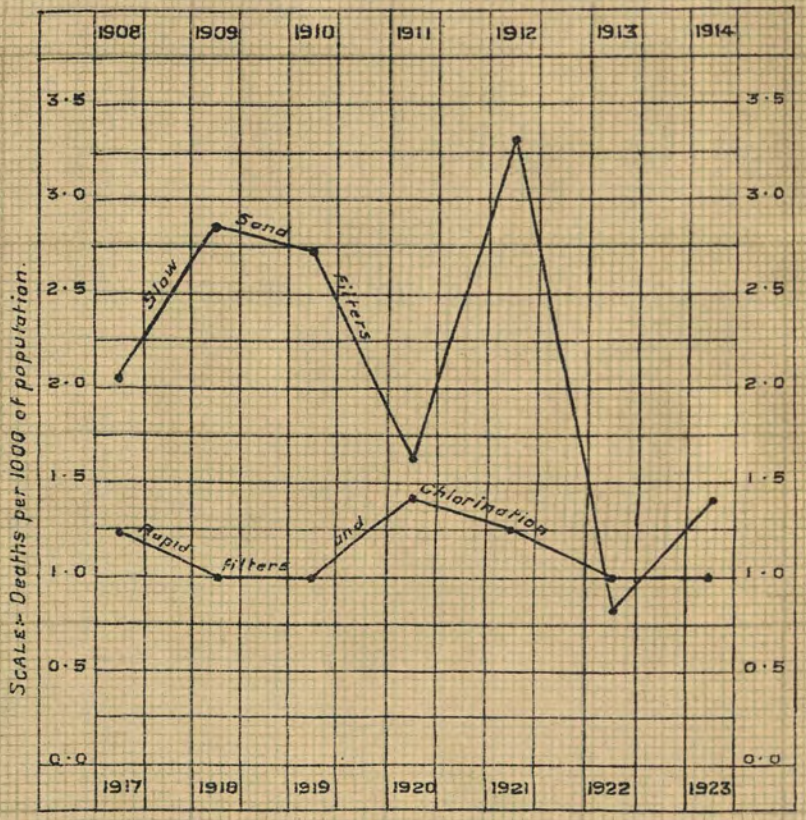
In column 7 is given for comparison the death-rate of the adjoining rural circle for the year under report.

District.	Town.	Date of completion of works of		Mean death-rate. (a)		Death-rate in adjoining rural circle. (a)	Mean death-rate from cholera *plus* dysentery and diarrhœa.		Remarks.
		Drainage.	Water supply.	For years preceding the installation.	For the years (succeeding installation) ending 1924.		For years preceding works.	For the years (following the works) ending 1924.	
1	2	3	4	5	6	7	8	9	
Sholapur ...	Sholapur ...	...	1917	61·01	45·73	27·80	14·05	3·76	
Do. ...	Pandharpur ...	...	1911	49·98	48·67	30·53	19·60	12·51	
Nasik ...	Nasik ...	...	1913	52·73	33·17	26·15	11·33	3·85	
Bijapur ...	Bijapur ...	...	1913	30·08	24·19	29·83	1·77	1·98	
Poona ...	Lonavla ...	...	1915	13·68	24·96	27·40	1·12	1·44	
Do. ...	Poona city* ...	1916	...	36·47	43·64	16·12	10·18	3·72	*Chlorination of water supply began in 1916.
Satara ...	Karad ...	...	1916	18·58	11·37	23·38	7·10	1·29	
Sholapur ...	Barsi ...	...	1917	44·41	40·56	33·07	5·83	3·86	
Nasik ...	Trimbak ...	...	1921	43·88	18·88	26·15	2·35	0·71	
Poona ...	Poona cantt. ...	...	1916	23·49	15·50	16·12	2·07	1·52	Change in type of installation.
Sukkur ...	Sukkur ...	...	1924	21·48	...	22·25	0·48	...	

(a) Exclusive of Plague and Influenza.

Chart IX.

POONA CANTONMENT CIVIL POPULATION.



Comparison of mortality from intestinal diseases including Cholera for periods before and after installation of rapid filters

APPENDIX IV

APPENDIX

ANNUAL FORM NO. I.—*Showing the Births registered in the*

1	2	3			4		
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1921.			NUMBER OF BIRTHS REGISTERED.		
		Male.	Female.	Total.	Male.	Female.	Total.
	Western Registration District.						
1	East Khándesh	545,376	529,746	1,075,122	25,357	23,751	49,108
2	West Khándesh	309,511	303,201	612,712	14,765	13,979	28,744
3	Násik	418,510	406,706	825,216	19,147	17,644	36,791
4	Thána	388,310	368,580	756,890	13,330	12,597	25,927
5	Bombay Suburban	87,507	63,874	151,441	1,437	1,314	2,751
6	Kolába	279,350	283,122	562,472	11,235	10,570	21,805
7	City of Bombay	751,948	396,867	1,148,815	11,068	10,389	21,457
	Central Registration District.						
8	Ahmednagar	362,047	361,031	723,078	17,364	16,270	33,634
9	Poona	500,601	487,080	987,681	16,842	15,582	32,424
10	Sholápur	382,374	359,256	741,630	14,974	14,370	29,344
11	Sátára	511,238	514,457	1,025,695	20,716	19,566	40,282
12	Ratnágiri	525,095	628,885	1,153,980	23,328	22,167	45,495
	Southern Registration District.						
13	Belgaum	484,636	465,047	949,683	19,708	18,993	38,701
14	Dhárwár	528,348	507,861	1,036,209	19,126	18,806	37,932
15	Bijápur	405,148	391,208	796,356	14,948	14,517	29,465
16	Kánara	203,950	197,526	401,476	7,956	7,449	15,405
	Gujarát Registration District.						
17	Surat	337,276	336,845	674,121	14,602	13,955	28,647
18	Broach	158,568	149,143	307,711	7,634	7,364	14,998
19	Kaira	379,702	331,203	710,905	14,477	12,854	27,331
20	Panch Mahals	193,385	181,446	374,831	7,870	7,223	15,093
21	Ahmedabad	473,693	414,231	887,924	18,201	16,789	35,080
	Sind Registration District.						
22	Karáchi	302,563	228,094	530,657	7,043	5,996	13,039
23	Hyderábad	316,834	250,415	567,249	5,489	4,211	9,700
24	Thar and Párkar	221,074	175,233	396,307	4,247	3,299	7,546
25	Nawabshah	233,826	184,826	418,652	5,989	4,458	10,447
26	Lárkána	331,204	266,733	597,937	7,089	5,363	12,452
27	Sukkur	281,493	227,869	509,362	7,544	6,039	13,583
28	Upper Sind Frontier	134,321	106,293	240,614	2,965	2,175	5,140
	Total for the Presidency ..	10,048,817	9,116,797	19,165,614	354,631	327,690	682,321

IV.

Districts of the Bombay Presidency during the year 1924.

5			6	7	8	9		
Ratio of Births per 1,000 of Population.			Number of males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	Mean ratio of Births per 1,000 during previous five years.		
Male.	Female.	Total.				Male.	Female.	Total.
23·59	22·00	45·68	106·76	7·14	..	22·25	20·80	43·05
24·10	22·81	46·91	105·62	16·71	..	21·42	19·96	41·08
23·20	21·38	44·58	108·52	12·97	..	19·16	17·87	37·03
17·61	16·64	34·25	105·82	9·28	..	14·34	13·46	27·80
9·49	8·68	18·17	109·36	0·42	...	8·92	8·10	17·02
19·98	18·80	38·77	106·29	11·33	..	17·27	16·12	33·39
9·64	9·04	18·68	106·54	...	14·76	9·62	9·05	18·67
23·99	22·47	46·46	106·73	15·82	..	19·00	17·57	36·57
17·05	15·78	32·83	108·09	1·71	..	15·76	14·37	30·13
20·19	19·38	39·57	104·20	6·18	..	19·17	18·00	37·17
20·20	19·07	39·27	105·88	12·35	..	17·07	17·01	34·08
20·22	19·21	39·43	105·24	15·97	..	16·80	15·68	32·48
20·75	20·00	40·75	103·76	13·84	..	19·35	18·45	37·80
18·46	18·15	36·61	101·70	3·44	...	17·90	17·10	35·00
18·77	18·23	37·00	102·97	4·72	..	18·37	17·52	35·89
19·82	18·55	38·37	106·81	9·06	..	16·88	15·73	32·61
21·80	20·70	42·50	105·28	16·39	..	18·55	17·17	35·72
24·81	23·93	48·74	103·67	17·59		21·51	20·63	42·14
20·36	18·05	38·44	112·63	10·15		18·18	16·30	34·78
21·00	19·27	40·27	108·96	20·30	..	18·61	17·56	36·17
20·60	18·91	39·51	108·95	10·44	..	18·18	16·63	34·81
13·27	11·30	24·57	117·46	4·73	..	11·82	10·25	22·07
9·68	7·42	17·10	130·35	..	0·22	10·31	8·00	18·31
10·72	8·32	19·04	128·74	0·22		9·72	7·76	17·48
14·30	10·65	24·95	134·34	6·20		10·75	7·91	18·66
11·86	8·96	20·82	132·18	5·88	..	11·00	9·03	20·03
14·81	11·86	26·67	124·92	7·22	..	13·31	10·69	24·00
12·32	9·04	21·36	136·32	7·85	..	11·29	8·63	19·92
18·50	17·10	35·60	108·22	7·07	..	16·56	15·19	31·75

ANNUAL FORM No. II.—*Showing the* BIRTHS *and* DEATHS *registered*

1	2	3	4	5	
Serial Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION (CENSUS	
				Male.	Female.
	Western Registration District.				
1	East Khándesh	4,551	236	545,376	529,746
2	West Khándesh	5,438	113	309,511	303,291
3	Násik	5,877	140	418,510	406,706
4	Thána	3,434	220	388,310	368,589
5	Bombay Suburban	142	1,066	87,567	63,674
6	Kolába	2,169	259	279,350	283,122
7	City of Bombay	24	47,867	751,918	396,867
	Central Registration District.				
8	Ahmednagar	6,610	109	362,947	361,031
9	Poona	5,357	184	500,601	487,080
10	Sholápur	4,556	163	382,374	359,256
11	Sátára	4,910	209	511,238	514,457
12	Ratnágiri	3,989	289	525,085	628,895
	Southern Registration District.				
13	Belgaum	4,611	206	484,615	465,047
14	Dhárwár	4,606	225	528,343	507,861
15	Bijápur	5,707	139	405,148	391,208
16	Kánara	3,946	102	203,950	197,526
	Gujarát Registration District.				
17	Surat	1,651	408	337,276	336,845
18	Broach	1,468	210	158,568	149,143
19	Kaira	1,596	445	379,702	331,203
20	Panch Mahális	1,606	233	193,385	181,416
21	Ahmedabad	3,824	232	473,693	414,231
	Sind Registration District.				
22	Karáchi	11,231	47	302,763	228,094
23	Hyderabad	4,417	128	316,834	250,415
24	Thar and Párkar	13,636	29	221,071	175,283
25	Nawabshah	3,889	107	233,826	184,826
26	Lárkána	5,057	118	331,264	266,733
27	Sukkur	5,612	91	281,493	227,869
28	Upper Sind Frontier	2,664	90	134,321	106,293
	Total for the Presidency ...	122,578	156	10,048,817	9,116,797

in the DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1924.*

	6		7			8
1921).	BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 deaths of females.
Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
1,075,122	49,108	45·68	20,879	20,551	41,430	101·60
612,712	28,744	46·91	9,521	8,987	18,508	105·94
825,216	36,791	44·58	13,673	12,419	26,092	110·09
756,899	25,927	34·25	9,878	9,028	18,906	109·42
151,441	2,751	18·17	1,481	1,207	2,688	122·70
562,472	21,805	38·77	7,902	7,530	15,432	104·91
1,148,815	21,457	18·68	21,331	17,086	38,417	124·84
723,978	33,634	46·46	11,694	10,489	22,183	111·49
987,081	32,424	32·83	16,096	14,636	30,732	109·98
741,630	29,344	39·57	12,805	11,954	24,759	107·12
1,025,095	40,282	39·27	14,263	13,352	27,615	106·82
1,153,980	45,395	39·43	13,553	13,518	27,071	100·26
949,602	38,701	40·75	12,836	12,719	25,555	100·92
1,036,209	37,932	36·61	17,315	17,055	34,370	101·52
796,356	29,465	37·00	13,068	12,700	25,768	102·43
401,476	15,405	38·37	5,967	5,802	11,769	102·84
674,121	28,647	42·50	8,937	8,662	17,599	103·17
307,711	14,998	48·74	4,797	4,787	9,584	100·21
710,905	27,331	38·44	10,572	9,543	20,115	110·78
374,831	15,093	40·27	3,902	3,582	7,484	108·93
887,924	35,080	39·51	13,565	12,243	25,808	110·80
530,657	13,039	24·57	5,719	4,810	10,529	118·90
567,249	9,700	17·10	5,380	4,442	9,822	121·12
396,307	7,516	19·04	4,144	3,316	7,460	124·97
418,652	10,447	24·95	4,342	3,508	7,850	123·77
597,937	12,452	20·82	4,854	4,080	8,934	118·97
509,362	13,583	26·67	5,244	4,664	9,905	112·37
240,614	5,140	21·36	1,771	1,480	3,251	119·66
19,165,614	682,321	35·60	275,426	254,150	529,576	108·37

ANNUAL FORM

1	2	9				
Serial Number.	Districts.	DEATHS PER 1,000 OF				
		Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.
	Western Registration District.					
1	East Khándesh	1·88	1·56	1·97	16·10	2·00
2	West Khándesh	·31	2·64	·07	13·09	·63
3	Násik	·78	·95	·00	11·80	1·81
4	Thána	·01	·75	·30	15·48	·00
5	Bombay Suburban	·01	·39	·08	9·04	1·37
6	Kolába	·14	1·09	·20	15·23	·75
7	City of Bombay	·02	1·07	·36	3·37	3·06
	Central Registration District.					
8	Ahmednagar	·53	·23	·28	6·64	3·17
	Poona	·16	·95	·12	11·47	2·32
10	Sholápur	·79	·49	1·29	13·94	3·09
11	Sátára	·39	·20	2·03	10·01	2·07
	Ratnágiri	·00	·52	·53	8·03	·88
	Southern Registration District.					
	Belgaum	·26	·04	1·03	6·70	3·26
14	Dhárwár	1·59	·12	·72	11·95	1·22
15	Bijápur	1·70	·05	·51	12·43	2·49
16	Kánara	·02	·06	·13	10·76	2·31
	Gujarát Registration District.					
17	Surat	...	·26	...	7·47	·82
18	Broach	...	·39	...	13·01	·66
19	Kaira	...	·41	...	9·73	1·08
20	Panch Maháls	...	·09	...	11·05	·41
21	Ahmedábad	·06	·93	...	12·22	·92
	Sind Registration District.					
22	Karáchi	·20	·31	·22	9·25	·48
23	Hyderabad	·10	·65	·00	12·40	·19
24	Thar and Párkar	·01	·07	...	14·93	·06
25	Nawabshah	·30	·15	...	16·32	·04
26	Lárkána	·16	·02	...	13·37	·03
27	Sukkur	·01	·08	·09	16·43	·17
28	Upper Sind Frontier	·06	·04	...	12·33	·07
	Total for the Presidency ...	·43	·58	·48	11·20	1·51

No. II—*concld.*

						10		
Population from						Mean ratio of deaths per 1,000 during previous five years.		
Respiratory Diseases.	Injuries.	All other causes.	All causes.					
			Male.	Female.	Total.	Male.	Female.	Total.
4·37	·23	10·42	38·26	38·79	38·53	30·19	28·70	29·45
3·37	·26	9·83	30·76	29·64	30·20	28·20	27·16	27·68
4·74	·37	11·16	32·67	30·54	31·61	33·62	31·10	32·37
2·34	·47	5·63	25·44	24·49	24·98	30·74	29·63	30·20
2·23	·54	4·09	16·91	18·90	17·75	18·47	19·61	18·95
2·81	·37	6·78	28·29	26·60	27·43	33·53	31·53	32·53
13·72	·71	11·13	28·37	43·05	33·44	39·66	57·08	45·75
5·44	·35	14·00	32·22	29·05	30·64	31·10	28·24	29·67
6·44	·37	9·29	32·15	30·05	31·12	32·84	30·05	31·46
3·07	·46	10·25	33·49	33·27	33·38	31·19	30·19	30·70
2·18	·42	9·64	27·90	25·95	26·92	27·40	25·59	26·49
4·22	·41	8·87	25·81	21·49	23·46	25·91	21·56	23·55
3·38	·41	11·83	26·49	27·35	26·91	25·72	25·83	25·79
3·80	·40	13·37	32·77	33·58	33·17	28·73	29·41	29·07
3·64	·37	11·09	32·11	32·46	32·28	26·13	25·28	25·71
2·07	·45	13·51	29·26	29·37	29·31	29·82	29·24	29·41
10·27	·32	6·97	20·50	25·72	26·11	30·44	29·10	29·78
9·23	·46	7·50	30·25	32·10	31·15	31·05	32·05	31·55
9·32	·47	7·29	27·84	28·81	28·30	27·88	28·28	28·06
3·19	·36	4·96	20·18	19·74	19·97	21·64	22·03	21·73
8·10	·47	6·37	28·64	29·56	29·07	31·48	31·94	31·69
4·33	·36	4·69	18·90	21·09	19·84	19·99	20·62	20·30
2·45	·21	1·32	16·98	17·74	17·32	15·99	15·40	15·75
2·87	·18	·70	18·74	18·92	18·82	14·00	13·72	14·36
1·06	·24	·64	18·57	18·98	18·75	13·31	13·30	13·29
·24	·24	·88	14·06	15·30	14·94	15·39	15·43	15·41
·41	·26	2·09	16·62	20·47	19·45	16·40	17·38	16·84
·29	·22	·50	13·18	13·92	13·51	13·03	12·87	12·97
4·75	·38	8·30	27·41	27·88	27·63	27·51	27·15	27·33

ANNUAL FORM NO. III.—DEATHS *registered in the* DISTRICTS *of the*

1	2	3				
No.	Districts.	January.	February.	March.	April.	May.
	Western Registration District.					
1	East Khándesh	2,653	2,724	3,294	3,309	2,995
2	West Khándesh	1,471	1,608	1,798	1,703	1,239
3	Násik	1,749	1,798	1,922	2,178	1,738
4	Thána	1,773	1,575	1,692	1,518	1,387
5	Bombay Suburban	262	222	238	189	183
6	Kolába	1,462	1,350	1,503	1,279	1,153
7	City of Bombay	3,544	3,435	3,818	3,229	2,929
	Central Registration District.					
8	Ahmednagar	1,423	1,252	1,349	1,534	1,599
9	Poona	2,393	2,413	2,607	2,601	2,532
10	Sholápur	1,932	1,703	1,633	1,609	2,127
11	Sátára	2,235	1,892	1,983	1,936	2,061
12	Ratnágiri	2,748	2,557	2,358	2,185	2,108
	Southern Registration District.					
13	Belgaum	1,997	1,935	2,295	2,062	2,046
14	Dhárwár	2,667	2,545	3,223	2,716	2,778
15	Bijápur	1,619	1,834	2,226	2,028	2,206
16	Kánara	1,092	1,053	963	785	869
	Gujarát Registration District.					
17	Surat	1,350	1,408	1,600	1,472	1,453
18	Broach	752	663	786	761	786
19	Kaira	1,345	1,420	2,041	1,944	1,485
20	Panch Mahás	570	564	749	673	565
21	Ahmedabad	1,981	2,004	2,526	2,517	2,025
	Sind Registration District.					
22	Karáchi	1,387	1,243	1,021	912	818
23	Hyderabad	1,293	1,090	895	766	689
24	Thar and Párkar	1,128	1,118	863	724	462
25	Nawabshah	1,110	746	767	512	630
26	Lárkána	1,076	702	569	550	654
27	Sukkur	1,179	985	687	571	718
28	Upper Sind Frontier	555	263	234	248	217
	Total for the Presidency ...	44,751	41,622	45,500	42,606	40,427
	Ratio of deaths per 1,000 in each month	2·34	2·17	2·38	2·22	2·11

BOMBAY PRESIDENCY *during each month of the year 1924.*

							4	5
June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the year.	No
2,611	4,009	6,221	4,656	3,719	2,837	2,312	41,430	1
1,022	1,316	1,815	1,933	1,773	1,570	1,255	18,508	2
1,775	2,273	2,619	3,009	2,718	2,423	1,890	26, 92	3
1,337	1,028	1,373	1,468	1,462	2,301	1,992	18,906	4
161	198	214	217	218	231	30)	2,688	5
1,021	1,029	1,185	1,189	1,063	1,469	1,729	15,432	6
2,471	2,865	3,313	3,298	3,694	3,105	2,916	38,417	7
1,588	2,101	2,447	2,614	2,687	2,013	1,576	22,183	8
2,212	2,714	2,794	2,911	2,673	2,489	2,383	80, 32	9
1,685	2,3?5	2,608	2,521	2,513	2,240	1,853	24,759	10
1,972	2,374	2,732	3,008	2,898	2,493	2,101	27,615	11
1,797	2,058	2,127	2,052	2,229	2,200	2,652	27,071	12
2,016	2,389	2,397	2,311	2,186	2,084	1,927	25,555	3
3,636	3,169	2,635	2,378	2,554	2,8 2	3,217	34, 79	14
2,550	2,779	2 329	2,094	2,372	1,939	1,732	25,708	15
877	987	1,020	1,000	904	1,036	1,183	11,769	16
1,295	1,438	1,428	1,356	1,337	1,727	1,685	17,599	17
739	871	958	808	903	863	694	9,584	18
1,405	1,753	1,983	2,057	1 930	1,583	1,159	20,115	19
483	596	704	735	667	688	55)	7,484	20
1,671	1,879	2,171	2,403	2,383	2,232	2,016	25,808	21
612	636	624	637	686	991	962	10,529	22
555	586	479	515	769	1,133	1,142	9,922	23
522	341	239	356	395	641	671	7,460	24
451	359	354	454	801	961	765	7,8 0	25
526	428	573	679	773	1,303	1,102	8 934	26
594	538	579	653	997	1,473	1,251	9 905	27
154	155	161	2 9	287	422	336	3,2 1	28
37,738	42,974	48,081	47,521	47,651	47,349	43,356	5,29,576	
1·97	2·23	2·51	2·48	2·49	2·47	2·26	27·63	

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in*

1	2	3	
No.	Districts.	Under 1 year.	
		Male.	Female.
	Western Registration District.		
1	East Khándesh	6,195	5,367
2	West Khándesh	3,077	2,696
3	Násik	4,340	3,365
4	Thána	2,104	1,928
5	Bombay Suburban	260	240
6	Kolába	1,977	1,681
7	City of Bombay	4,768	4,312
	Central Registration District.		
8	Ahmednagar	3,639	2,809
9	Poona	4,470	3,657
10	Sholápur	3,464	2,862
11	Sátára	3,447	2,964
12	Ratnágiri	2,317	1,969
	Southern Registration District.		
13	Belgaum	3,018	2,459
14	Dhárwár	3,509	2,917
15	Bijápur	2,707	2,169
16	Kánara	1,652	1,378
	Gujarat Registration District.		
17	Surat	2,720	2,378
18	Broach	1,550	1,399
19	Kaira	2,642	2,457
20	Panch Mahála	906	793
21	Ahmedabad	4,043	3,602
	Sind Registration District.		
22	Karáchi	1,671	1,497
23	Hyderabad	1,240	1,115
24	Thar and Parkar	623	551
25	Nawabshah	988	760
26	Lárkána	1,180	931
27	Sukkur	1,567	1,420
28	Upper Sind Frontier	415	374
	Total for the Presidency ...	70,489	59,950
	Population according to Census of 1921 ...	287,146	2,82,999
	Ratios per 1,000 living ...	245·48	211·84

NOTE.—Civil population by age groups not being available, rates in Form IV are calculated
population. The rates in other forms

the DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1924.*

4		5		6		7	
1 year and under 5.		5 and under 10.		10 and under 15.		15 and under 20.	
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
5,815	5,908	1,251	1,260	726	748	397	524
2,384	2,482	608	615	240	283	155	220
3,105	3,143	560	583	323	346	188	297
1,883	1,914	665	658	361	293	244	292
264	190	68	60	44	46	41	57
1,402	1,423	403	460	210	197	175	256
2,882	3,113	614	761	456	564	766	728
1,973	1,853	468	465	349	354	241	356
3,380	3,175	692	648	409	406	324	457
2,542	2,508	634	689	417	432	287	389
2,678	2,542	701	791	444	463	598	590
2,090	1,955	548	619	361	392	367	378
2,606	2,941	718	783	444	428	285	348
3,587	3,843	1,074	1,097	608	583	344	491
2,366	2,515	829	792	452	464	313	348
675	645	193	186	121	141	139	220
1,593	1,527	383	448	191	224	188	263
1,144	1,122	196	196	101	104	70	128
2,638	2,271	303	300	253	211	187	173
754	736	219	195	131	99	88	110
2,354	2,224	435	416	323	315	396	439
816	786	239	207	199	153	189	228
864	850	275	267	200	131	176	201
410	329	200	190	200	141	181	178
796	696	327	273	171	122	159	165
765	720	339	290	159	122	152	174
999	865	277	246	159	130	124	225
305	255	137	110	63	50	59	61
53,070	52,631	13,347	13,596	8,115	7,912	6,578	8,239
885,160	924,957	1,468,775	1,379,851	1,224,010	969,652	751,225	650,813
59·96	56·90	9·08	9·85	6·63	8·16	8·76	12·65

on the total population figures which include Europeans, Anglo-Indians and Military and Jail are based on the Indian Civil population.

ANNUAL FORM

1	2	8	
		20 and under 30.	
No.	Districts.	Male.	Female.
	Western Registration District.		
1	East Khándesh	816	1,277
2	West Khándesh	341	484
3	Násik	622	812
4	Thána	721	897
5	Bombay Suburban	160	170
6	Kolába	480	636
7	City of Bombay	2,802	2,000
	Central Registration District.		
8	Ahmednagar	572	750
9	Poona	929	1,199
10	Sholápur	711	892
11	Sátára	1,042	1,148
12	Ratnágiri	1,192	1,375
	Southern Registration District.		
13	Belgaum	680	902
14	Dhárwár	1,081	1,553
15	Bijápur	811	1,018
16	Kánara	488	733
	Gujarat Registration District.		
17	Surat	499	777
18	Broach	217	333
19	Kaira	630	665
20	Panch Mahals	251	301
21	Ahmedabad	1,071	1,052
	Sind Registration District.		
22	Karáchi	570	593
23	Hyderabad	527	533
24	Thar and Párkar	527	470
25	Nawábsháh	395	441
26	Lárkána	455	553
27	Sukkur	358	513
28	Upper Sind Frontier	141	179
	Total for the Presidency ...	19,084	22,261
	Population according to Census of 1921 ...	1,781,925	1,656,476
	Ratios per 1,000 living ...	10·71	13·44

No. IV—*concld.*

9		10		11		12		13
30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1,048	1,126	1,032	868	1,018	696	2,581	2,777	1
493	496	548	350	517	334	1,158	1,127	2
890	907	696	573	885	565	1,864	1,828	3
965	867	948	553	858	529	1,129	1,097	4
158	121	172	81	119	58	195	184	5
661	613	651	430	708	507	1,235	1,327	6
2,994	1,612	2,088	1,024	1,580	768	2,381	2,204	7
743	733	818	596	797	617	2,094	1,956	8
1,139	1,089	1,077	761	1,048	708	2,628	2,536	9
832	767	699	569	793	638	2,476	2,174	10
1,082	885	1,013	785	1,205	930	2,253	2,245	11
1,134	1,261	1,064	899	1,269	1,068	3,211	3,602	12
815	887	898	657	980	718	2,392	2,596	13
1,380	1,510	1,344	940	1,435	1,069	2,053	3,032	14
975	1,005	848	697	1,209	889	2,507	2,853	15
613	576	667	469	540	431	879	1,048	16
585	673	674	479	722	488	1,382	1,405	17
241	332	307	249	363	238	608	686	18
757	796	783	598	816	538	1,563	1,532	19
323	294	311	238	369	211	555	610	20
1,151	975	1,174	799	1,123	888	1,495	1,583	21
657	434	493	281	352	199	533	432	22
602	463	528	278	416	225	552	379	23
633	484	482	342	381	267	507	364	24
399	352	387	253	329	183	391	263	25
462	426	497	296	373	208	542	360	26
411	348	419	237	340	236	592	444	27
146	148	132	84	128	79	245	140	28
22,289	20,182	20,880	14,381	20,673	14,214	40,901	40,784	
1,642,370	1,349,143	1,025,062	901,989	615,661	556,308	457,220	480,976	
13·57	15·70	20·37	15·94	33·58	25·55	89·46	84·79	

ANNUAL FORM NO. IV (*a*).—*Showing the details of* DEATHS *during the*

DEATHS

No.	Districts.	Not exceeding one month.						Total of columns 5 and 8.
		Male.			Female.			
		Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.	
1	2	3	4	5	6	7	8	9
	Western Registration District.							
1	East Khándesh	1,154	897	2,051	959	866	1,825	3,876
2	West Khándesh	588	407	995	450	330	780	1,775
3	Násik	928	708	1,636	646	521	1,167	2,803
4	Thána	545	347	892	459	281	740	1,632
5	Bombay Suburban	64	24	88	53	34	87	175
6	Kolába	576	378	954	474	337	811	1,765
7	City of Bombay	1,159	718	1,877	876	619	1,495	3,372
	Central Registration District.							
8	Ahmednagar	947	560	1,507	726	413	1,139	2,646
9	Poona	779	679	1,458	619	583	1,202	2,660
10	Sholápur	704	584	1,288	595	504	1,099	2,387
11	Sátára	785	575	1,360	676	540	1,216	2,576
12	Ratnágiri	569	495	1,064	447	377	824	1,888
	Southern Registration District.							
13	Belgaum	704	618	1,322	523	524	1,047	2,369
14	Dhárwár	759	706	1,465	590	576	1,166	2,631
15	Bijápur	511	529	1,040	380	430	810	1,850
16	Kánara	670	363	1,033	486	304	790	1,823
	Gujarát Registration District.							
17	Surat	777	495	1,272	585	414	999	3,271
18	Broach	361	288	649	311	253	564	1,213
19	Kaira	394	379	773	437	374	811	1,584
20	Panch Mahals	159	212	371	152	159	311	682
21	Ahmedabad	518	588	1,106	416	516	932	2,038
	Sind Registration District.							
22	Karáchi	353	247	600	244	222	466	1,066
23	Hydorabad	244	211	455	197	200	397	852
24	Thar and Párkar	166	102	268	151	94	245	513
25	Nawabshah	224	201	425	174	141	315	740
26	Lárkána	265	219	484	174	171	345	829
27	Sukkur	263	284	547	239	243	482	1,029
28	Upper Sind Frontier ...	96	79	175	87	70	157	332
	Total for the Presidency ...	15,262	11,893	27,155	12,126	10,096	22,222	49,377

under one year IN THE DISTRICTS *of the* BOMBAY PRESIDENCY *year 1924.*

UNDER ONE YEAR.

Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total, male columns 5, 10 and 13.	Total, Female columns 8, 11 and 14.	Total.	No.
Male.	Female.	Total.	Male.	Female.	Total.				
10	11	12	13	14	15	16	17	18	19
2,165	1,785	3,950	1,979	1,757	3,736	6,195	5,367	11,562	1
1,271	1,053	2,324	811	763	1,574	3,077	2,596	5,673	2
1,694	1,328	3,022	1,010	870	1,880	4,340	3,365	7,705	3
856	828	1,684	356	360	716	2,104	1,928	4,032	4
97	79	176	75	74	149	260	240	500	5
661	551	1,212	362	319	681	1,977	1,681	3,658	6
1,349	1,187	2,536	1,542	1,630	3,172	4,768	4,312	9,080	7
1,354	1,093	2,447	778	587	1,365	3,699	2,809	6,448	8
1,424	1,193	2,617	1,568	1,262	2,850	4,470	3,657	8,127	9
1,091	867	1,958	1,085	896	1,981	3,464	2,962	6,326	10
1,323	1,147	2,470	764	601	1,365	3,447	2,964	6,411	11
658	571	1,229	595	574	1,169	2,317	1,969	4,286	12
1,039	881	1,920	657	531	1,188	3,018	2,459	5,477	13
1,167	989	2,156	877	762	1,639	3,509	2,917	6,426	14
1,081	858	1,939	586	501	1,087	2,707	2,169	4,876	15
404	395	799	215	193	408	1,652	1,378	3,030	16
889	829	1,718	559	550	1,109	2,720	2,378	5,098	17
546	500	1,046	355	335	690	1,550	1,399	2,949	18
1,060	950	2,010	809	696	1,505	2,642	2,457	5,099	19
366	322	688	169	160	329	906	793	1,699	20
1,508	1,323	2,831	1,429	1,347	2,776	4,043	3,602	7,645	21
450	402	852	621	629	1,250	1,671	1,497	3,168	22
325	293	618	460	425	885	1,240	1,115	2,355	23
181	160	341	174	146	320	628	551	1,174	24
247	176	423	316	269	585	968	760	1,748	25
330	256	586	366	330	696	1,180	931	2,111	26
429	386	815	591	552	1,143	1,567	1,420	2,987	27
106	93	199	134	124	258	415	374	789	28
24,071	20,485	44,556	19,263	17,243	36,506	70,489	59,950	130,439	

ANNUAL FORM No. V.—DEATHS *registered according* PRESIDENCY *during*

1	2				
		POPULATION			
No.	Districts.	Muhammadans.		Hindus.	
		Male.	Female.	Male.	Female.
	Western Registration District.				
1	East Khandesh	55,176	52,333	484,070	472,143
2	West Khandesh	16,011	15,346	262,850	256,881
3	Nasik	23,806	21,948	388,491	379,357
4	Thana	17,411	14,481	354,764	338,299
5	Bombay Suburban	8,728	5,625	65,684	46,744
6	Kolaba	14,012	14,342	292,562	285,748
7	City of Bombay	126,177	57,210	543,171	289,372
	Central Registration District.				
8	Ahmednagar	18,966	17,870	327,801	325,681
9	Poona	23,591	19,913	465,217	454,887
10	Sholapur	30,467	28,235	346,655	326,392
11	Satara	18,337	17,652	488,403	488,459
12	Ratnagiri	34,410	46,581	486,985	578,134
	Southern Registration District.				
13	Belgaum	40,875	38,943	418,962	403,209
14	Dharwar	73,484	69,553	446,006	430,468
15	Bijapur	46,940	47,185	354,458	342,191
16	Kanara	12,580	13,822	182,587	175,191
	Gujarat Registration District.				
17	Surat	28,071	28,179	279,833	280,147
18	Broach	36,085	33,903	117,003	110,217
19	Kaira	34,193	31,022	328,634	284,525
20	Panch Mahals	13,888	12,797	171,905	161,201
21	Ahmedabad	53,637	45,433	399,443	348,852
	Sind Registration District.				
22	Karachi	213,208	168,986	82,381	53,744
23	Hyderabad	231,341	178,455	87,318	71,811
24	Thar and Parkar	118,596	94,139	98,214	77,812
25	Nawabshah	181,280	139,855	52,448	44,900
26	Larkana	277,501	222,052	53,024	44,130
27	Sukkur	209,273	158,123	79,859	68,329
28	Upper Sind Frontier	120,494	95,783	13,561	10,294
	Total for the Presidency ...	2,071,588	1,689,766	7,637,589	7,130,018

N.B.—This and all the other Statements refer to Indians only and not to Europeans, "Hindus"

Note.—Population by classes in Form V includes Jail figures.

to CLASSES *and* SEX, *in the Districts of the* BOMBAY *the year 1924.*

3

ACCORDING TO THE CENSUS OF 1921.

Jains.		Christians.		Parsis.		Other Classes.		Total.		Total.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
4,708	3,992	625	518	261	178	536	582	545,376	529,746	1,075,122
2,255	1,832	543	445	120	70	28,244	28,649	309,511	303,201	612,712
4,076	3,445	1,577	1,524	509	400	51	32	418,510	406,706	825,216
1,524	744	13,339	13,112	1,532	1,907	159	150	388,310	368,589	756,899
1,354	632	10,471	9,608	1,246	1,199	84	66	87,567	63,874	151,441
1,153	487	622	482	177	139	837	925	279,350	283,122	562,472
17,587	6,297	32,198	16,096	27,948	24,286	5,505	3,718	751,948	396,867	1,148,815
6,867	6,171	10,967	11,185	90	90	62	34	364,753	361,031	725,784
6,706	4,984	5,109	5,448	1,557	1,510	454	448	500,601	487,060	987,661
4,015	3,413	1,067	1,055	170	161	...	...	382,374	359,256	741,630
8,104	7,197	1,102	886	261	237	31	26	511,238	514,457	1,025,695
819	821	3,078	3,339	22	14	16	11	525,085	628,895	1,153,980
21,868	19,987	2,963	2,840	59	62	22	7	484,615	465,047	949,662
5,741	4,809	3,321	2,888	129	121	45	24	528,348	507,661	1,036,209
1,675	1,320	537	526	19	11	...	...	405,149	391,206	796,355
595	519	8,051	7,994	9	4	1	...	203,950	197,526	401,476
5,427	4,817	948	680	5,037	6,014	17,960	17,008	337,276	336,845	674,121
1,758	1,497	1,406	1,178	1,045	1,176	1,271	1,172	158,568	149,143	307,711
3,210	3,128	13,276	12,236	54	40	335	252	379,702	331,203	710,905
956	857	1,626	1,555	127	113	4,883	4,923	193,385	181,446	374,831
18,353	17,094	2,424	1,947	861	802	174	173	473,693	414,231	887,924
635	488	3,611	2,348	1,396	1,323	1,890	1,219	302,563	228,094	530,657
45	37	127	87	34	23	14	8	316,834	250,415	567,249
150	118	43	16	4	4	4,067	3,144	221,074	175,233	396,307
1	....	19	13	3	...	75	58	233,826	184,826	418,652
...	...	27	9	2	...	650	542	331,204	266,733	597,937
8	8	161	117	67	56	1,836	1,252	281,493	227,869	509,362
29	20	4	6	...	...	233	190	134,321	106,293	240,614
119,619	94,709	119,242	98,138	42,739	39,940	69,444	64,613	10,050,623	9,116,797	19,167,420

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others

ANNUAL FORM

1	2				
No.	Districts.	Muhammadans.		Hindus.	
		Male.	Female.	Male.	Female.
	Western Registration District.				
1	East Khandesh	1,468	1,539	19,385	18,994
2	West Khandesh	317	308	9,193	8,668
3	Nasik	626	584	13,018	11,805
4	Thana	440	462	9,105	8,264
5	Bombay Suburban	163	184	1,104	872
6	Kolaba	419	392	7,447	7,110
7	City of Bombay	4,548	3,477	14,646	11,937
	Central Registration District.				
8	Ahmednagar	475	368	11,163	10,050
9	Poona	742	713	15,252	13,834
10	Sholapur	967	920	11,776	10,980
11	Satara ...	504	440	13,656	12,806
12	Ratnagiri	1,047	1,103	12,423	12,347
	Southern Registration District.				
13	Belgaum	990	912	11,266	11,277
14	Dharwar	2,444	2,313	14,660	14,557
15	Bijapur	1,429	1,472	11,538	11,180
16	Kanara	340	333	5,405	5,27
	Gujarat Registration District.				
17	Surat	595	670	8,115	7,759
18	Broach	1,052	1,122	3,684	3,608
19	Kaira	1,038	967	9,367	8,432
20	Panch Mahals	243	245	3,628	3,316
21	Ahmedabad	1,729	1,551	11,426	10,217
	Sind Registration District.				
22	Karachi	3,574	2,929	2,049	1,805
23	Hyderabad	3,317	2,576	2,048	1,862
24	Thar and Parkar	2,214	1,748	1,916	1,555
25	Nawabshah	3,020	2,302	1,305	1,194
26	Larkana	3,642	3,031	1,209	1,048
27	Sukkur	3,200	2,668	2,027	1,988
28	Upper Sind Frontier	1,468	1,202	300	273
	Total for the Presidency ...	42,011	36,481	228,111	213,01

No. V—*contd.*

NUMBER OF DEATHS REGISTERED.

Jains.		Christians.		Parsis.		Other Classes.		Total.		Total.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
11	10	12	6	2	1	1	1	20,879	20,551	41,430
4	4	7	7	...	...	...	...	9,521	8,987	18,508
5	3	20	22	2	4	2	1	13,673	12,419	26,092
1	...	287	262	36	34	9	6	9 678	9,028	18,906
2	5	204	194	4	...	4	2	1,481	1,207	2,688
2	1	14	13	1	...	19	14	7,902	7,530	15,432
170	259	900	709	606	571	161	133	21,331	17,086	38,417
8	11	47	58	1	2	...	...	11,694	10,489	22,183
8	14	69	59	13	11	12	5	16,096	14,636	30,732
54	47	8	5	...	2	...	...	12,805	11,954	24,759
94	102	7	4	2	...	...	...	14,263	13,352	27,615
10	7	73	61	...	...	...	...	13,553	13,518	27,071
531	495	49	34	...	1	...	...	12,836	12,719	25,555
147	130	64	54	...	1	...	...	17,315	17,055	34,370
28	32	13	16	...	...	...	...	1,3008	12,700	25,708
10	16	212	180	...	...	...	...	5,967	5,802	11,769
99	105	14	19	114	109	...	...	8,937	8,662	17,599
30	20	8	5	23	32	...	...	4,797	4,787	9,584
54	36	113	108	...	...	...	...	10,572	9,543	20,115
14	17	15	4	2	...	...	...	3,902	3,582	7,484
337	411	63	56	8	8	2	...	13,565	12,243	25,808
...	...	69	54	21	13	6	9	5,719	4,810	10,529
1	...	2	1	...	...	12	3	5,380	4,442	9,822
1	2	...	1	...	...	13	10	4,144	3,316	7,460
1	...	2	...	...	...	14	12	4,342	3,508	7,850
...	...	...	...	...	...	3	1	4,854	4,080	8,934
...	...	1	1	2	...	11	7	5,241	4,664	9,905
...	...	...	...	...	...	3	5	1,771	1,480	3,251
1,922	1,727	2,273	1,933	837	782	272	209	275,426	254,150	529,576

1	2							
No.	Districts.	Muhammadans.		Hindus.		Jains.		
		Male.	Female.	Male.	Female.	Male.	Female.	
	Western Registration District.							
1	East Khandesh	26·60	29·41	40·05	40·22	2·34	2·51	
2	West Khandesh	19·80	20·07	34·97	33·74	1·77	2·18	
3	Nasik	26·30	26·61	33·51	31·12	1·24	·90	
4	Thana	25·27	31·90	25·66	24·43	·66	...	
5	Bombay Suburban	18·68	23·82	16·81	18·65	1·48	7·91	
6	Kolaba	29·90	27·33	28·36	26·65	1·73	2·05	
7	City of Bombay	36·04	60·75	26·96	41·27	26·72	41·13	
	Central Registration District.							
8	Ahmednagar	25·04	20·59	34·05	30·86	1·16	1·78	
9	Poona	31·45	35·81	32·78	30·41	1·19	2·31	
10	Sholapur	31·74	32·58	33·97	33·64	13·45	13·77	
11	Satara	27·48	24·93	28·25	26·22	11·60	14·17	
12	Ratnagiri	30·43	23·68	25·51	21·36	12·21	8·53	
	Southern Registration District.							
13	Belgaum	24·22	23·42	26·89	27·97	24·28	24·77	
14	Dharwar	33·26	33·26	32·87	33·82	25·61	27·03	
15	Bijapur	29·02	31·20	32·55	32·67	16·72	24·24	
16	Kanara	27·03	24·09	29·55	30·10	16·31	30·63	
	Gujarat Registration District.							
17	Surat	21·20	23·78	29·00	27·70	18·24	21·30	
18	Broach	29·15	33·09	31·49	32·74	17·06	13·36	
19	Kaira	30·36	31·17	28·50	29·64	16·82	11·51	
20	Panch Mahals	17·50	19·15	21·10	20·57	14·64	19·84	
21	Ahmedabad	32·24	34·14	28·60	29·29	18·36	24·04	
	Sind Registration District.							
22	Karachi	16·76	17·33	24·87	33·59	...	...	
23	Hyderabad	14·34	14·44	23·45	25·98	22·22	...	
24	Thar and Parkar	18·67	18·57	19·51	19·98	6·67	16·95	
25	Nawabshah	16·66	16·46	24·88	26·59	1,000·00	...	
26	Larkana	13·12	13·65	22·80	23·75	...	...	
27	Sukkur	15·98	16·87	25·38	29·09	...	...	
28	Upper Sind Frontier	12·18	12·55	22·12	26·52	...	...	
	Total for the Presidency ...	20·28	21·94	29·87	29·88	16·07	18·23	

No. V—*concld.*

RATIO OF DEATHS PER 1,000 OF POPULATION.

Christians.		Parsis.		Other Classes.		Total.		
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
19·20	11·58	7·66	5·62	1·86	1·72	38·26	38·79	38·53
12·89	15·73	...	...	...	...	30·76	29·64	30·20
12·68	14·44	3·93	10·00	39·22	31·25	32·67	30·54	31·61
21·52	19·98	23·50	17·83	56·60	40·00	25·44	24·49	24·98
19·48	20·19	3·21	...	47·61	30·30	16·91	18·90	17·75
22·51	26·97	5·65	...	22·70	15·15	28·29	26·60	27·43
27·95	44·05	21·68	23·51	29·24	35·77	28·37	43·05	33·44
4·29	5·18	11·11	22·22	...	...	32·06	29·05	30·56
13·51	10·83	8·35	7·28	26·43	11·16	32·15	30·05	31·12
7·50	4·74	...	12·42	...	...	33·49	33·27	33·38
6·35	4·51	7·66	...	...	...	27·90	25·95	26·92
23·72	18·27	...	...	...	...	25·81	21·49	23·46
16·54	11·97	...	16·13	...	...	26·49	27·35	26·91
19·27	18·70	...	8·26	...	...	32·77	33·58	33·17
24·21	30·42	...	...	...	...	32·11	32·46	32·28
26·33	22·52	...	...	...	...	29·26	29·37	29·31
14·77	27·94	22·63	18·12	...	...	26·50	25·72	26·11
5·69	4·24	22·01	27·21	...	...	30·25	32·10	31·15
8·51	8·83	...	...	...	...	27·84	28·81	28·30
9·23	2·57	15·75	...	...	...	20·18	19·74	19·97
25·99	28·76	9·29	9·97	11·49	...	28·64	29·56	29·07
19·11	23·00	15·04	9·83	3·16	7·38	18·90	21·09	19·84
15·75	11·49	...	...	857·14	375·00	16·98	17·74	17·32
...	62·50	...	...	3·20	3·18	18·74	18·92	18·82
105·26	...	...	...	186·67	206·90	18·57	18·93	18·75
...	...	...	...	4·62	1·84	14·66	15·30	14·94
6·21	8·55	29·85	...	5·99	5·60	18·62	20·47	19·45
...	...	...	...	12·88	26·32	13·16	13·92	13·51
19·06	19·70	19·58	19·75	3·92	3·23	27·41	27·88	27·63

ANNUAL FORM No. VI.—DEATHS *registered from* BOMBAY PRESIDENCY

Details regarding Births

No.	2 Districts and Towns.	3 Population according to Census of 1921.	4 Births. Male.	Female.	Total.	Birth-rate.
	A.—DISTRICTS (EXCLUDING TOWNS).					
	Western Registration District.					
1	East Khándesh	918,037	22,908	21,573	44,481	48·50
2	West Khándesh	568,809	13,925	13,305	27,230	47·87
3	Násik	705,858	17,419	16,156	33,575	47·57
4	Thána	694,658	12,520	11,852	24,372	35·08
5	Bombay Suburban	91,943	938	887	1,825	19·85
6	Kolába	533,270	10,965	10,333	21,298	39·94
	Central Registration District.					
7	Ahmednagar	667,106	16,722	15,653	32,375	48·53
8	Poona	770,334	15,197	14,113	29,310	38·05
9	Sholápur	574,999	12,325	11,989	24,314	42·29
10	Sátára	964,847	20,060	19,015	39,075	40·50
11	Ratnágiri	1,083,350	22,247	21,161	43,408	40·07
	Southern Registration District.					
12	Belgáum	871,163	18,510	17,915	36,425	41·81
13	Dhárwár	870,565	16,503	16,338	32,841	37·72
14	Bijápur	717,798	13,494	13,179	26,673	37·16
15	Kánara	350,246	7,122	6,665	13,787	39·36
	Gujarat Registration District.					
16	Surat	526,465	12,246	11,765	24,011	45·61
17	Broach	243,112	6,229	5,964	12,193	50·15
18	Káira	604,528	12,296	10,918	23,214	38·40
19	Panch Mahals	331,791	7,240	6,689	13,929	41·98
20	Ahmedabad	568,759	11,639	10,512	22,151	38·95
	Sind Registration District.					
21	Karáchi	307,576	2,508	1,731	4,239	13·78
22	Hyderabad	480,469	3,724	2,715	6,439	13·40
23	Thar and Párkar	386,343	4,199	3,269	7,468	19·33
24	Nawábsháh	402,915	5,801	4,320	10,121	25·12
25	Larkana	562,636	6,487	4,802	11,289	20·06
26	Sukkur	394,216	5,476	4,451	9,927	25·18
27	Upper Sind Frontier	230,036	2,821	2,088	4,909	21·34
	Total of Districts ...	15,421,829	301,521	279,358	580,879	37·67

different causes and in the DISTRICTS *and* TOWNS *of the*
during the year 1924.
also shewn, column 4.

5	6	7	8	9	10	11 INJURIES— *(continued on next page).*	
						Suicide.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Male.	Female.
1,766	1,562	1,602	15,695	1,864	4,117	2	4
168	1,581	26	7,889	306	1,856	2	2
594	682	2	8,834	1,328	3,311	8	4
9	499	173	11,260	363	1,278	22	12
1	21	9	977	142	178	4	3
79	527	96	8,364	410	1,476	4	2
380	160	204	4,632	2,235	3,614	10	3
138	282	104	9,902	1,838	3,633	3	6
482	59	228	7,150	1,748	1,622	12	3
386	195	1,878	10,040	2,049	2,010	21	8
4	531	592	8,908	937	4,590	9	4
222	39	928	5,951	2,943	2,898	15	8
1,576	108	647	11,413	1,047	2,787	19	16
1,134	28	312	9,225	1,843	2,479	26	16
7	20	51	4,071	811	717	10	5
..	95	.....	4,619	253	5,191	9	10
..	88	.....	3,405	150	2,212	...	3
..	117	.....	5,316	597	5,766	11	7
...	16	.....	3,555	146	1,129	3	1
37	93	.....	8,289	274	2,591	6	9
98	41	.....	3,365	15	288	2	3
38	36	.....	6,178		476	...	3
4	20	.....	5,800	15	1,003	2	2
127	59	.....	6,681	15	378	3	6
66	10	.....	7,356	11	99	9	6
3	1	.....	6,726	28	54	7	4
14	..	.....	2,817	16	56	3	5
7,353	6,870	6,852	188,418	21,408	55,809	222	155

ANNUAL FORM

1	2	11				12	13
		INJURIES—*contd.*					
No.	Districts and Towns.	Wounding or Accident.	Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.
	A.—DISTRICTS (EXCLUDING TOWNS).						
	Western Registration District.						
1	East Khandesh ...	150	34	13	202	9,950	36,758
2	West Khandesh ...	90	41	7	142	5,462	17,440
3	Nasik ...	179	43	26	260	8,046	23,057
4	Thana ...	158	125	11	328	3,406	17,316
5	Bombay Suburban ...	59	4	1	71	348	1,747
6	Kolaba ...	125	57	6	194	3,681	14,777
	Central Registration District.						
7	Ahmednagar ...	169	43	13	238	9,739	21,302
8	Poona ...	251	34	6	300	6,661	22,858
9	Sholapur ...	191	43	7	256	5,765	17,310
10	Satara ...	282	77	19	407	9,307	26,373
11	Ratnagiri ...	199	238	5	455	9,612	25,629
	Southern Registration District.						
12	Belgaum ...	269	50	4	346	10,547	23,574
13	Dharwar ...	269	29	8	341	11,860	29,779
14	Bijapur ...	199	15	5	261	7,325	22,607
15	Kanara ...	137	21	...	173	4,963	10,813
	Gujarat Registration District.						
16	Surat ...	117	27	5	168	2,875	13,201
17	Broach ...	77	20	9	109	1,782	7,746
18	Kaira ...	207	35	27	287	4,408	16,491
19	Panch Mahals ...	90	34	4	132	1,703	6,681
20	Ahmedabad ...	141	67	35	258	2,171	13,713
	Sind Registration District.						
21	Karachi ...	50	17	...	72	239	4,118
22	Hyderabad ...	42	35	...	80	194	7,026
23	Thar and Parkar ...	30	36	...	70	239	7,151
24	Nawabshah ...	68	27	1	100	258	7,618
25	Larkana ...	85	31	...	131	222	7,900
26	Sukkur ...	55	29	1	96	160	7,068
27	Upper Sind Frontier ...	36	8	1	53	60	3,016
	Total of Districts ...	3,720	1,220	213	5,580	120,928	413,168

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-Pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all causes.	
								For the year.	Mean of previous five years.
1·92	1·70	1·75	11·10	2·03	4·48	·22	10·84	40·04	29·79
·33	2·78	·05	13·87	·54	3·26	·25	9·58	30·66	27·58
·84	·97	·00	12·51	1·88	4·69	·37	11·40	32·66	32·90
·01	·72	·25	16·21	·52	1·84	·47	4·90	24·92	30·19
·01	·23	·10	10·62	1·54	1·94	·77	3·78	19·00	19·38
·15	·99	·18	15·68	·77	2·77	·35	6·81	27·71	33·04
·57	·24	·30	6·94	3·35	5·42	·36	14·60	31·78	30·19
·18	·37	·13	12·85	2·38	4·72	·39	8·65	29·67	29·89
·84	·10	·40	12·43	3·04	2·82	·44	10·03	30·10	27·38
·40	·20	1·95	10·41	2·12	2·08	·42	9·65	27·23	26·65
·00	·49	·55	8·22	·87	4·24	·42	8·67	23·66	23·60
·25	·04	1·07	6·83	3·38	3·32	·40	12·11	27·40	25·95
1·81	·13	·74	13·11	1·20	3·20	·39	13·63	34·21	28·62
1·58	·04	·43	12·85	2·57	3·45	·36	10·21	31·49	25·53
·02	·05	·15	11·62	2·31	2·05	·49	14·17	30·87	31·17
...	·18	...	8·76	·49	9·86	·32	5·46	25·07	29·88
...	·36	...	14·01	·62	9·09	·45	7·33	31·86	31·70
...	·19	...	8·79	·99	9·54	·48	7·29	27·28	30·05
...	·05	...	10·72	·44	3·40	·40	5·13	20·14	22·10
·07	·16	...	14·57	·48	4·56	·45	3·62	24·11	27·41
·32	·13	...	10·94	·05	·94	·23	·98	13·39	11·09
·08	·07	...	12·86	·05	·99	·17	·40	14·62	13·98
·01	·05	...	15·01	·04	2·60	·18	·62	18·51	13·98
·31	·15	...	16·58	·04	·94	·25	·64	18·91	13·23
·12	·02	...	13·06	·03	·18	·23	·40	14·04	14·65
·01	·00	...	17·06	·07	·14	·24	17·93	14·40	14·33
·06	...	...	12·25	·07	·24	·23	·26	13·11	12·66
·47	·45	·44	12·22	1·39	3·62	·36	7·84	26·79	25·53

1	2	3	4			
			Births.			
No.	Districts and Towns.	Population according to Census of 1921.	Male.	Female.	Total.	Birth-rate.
	B.—TOWNS.					
	East Khándesh District.					
1	Jalgaon	23,696	323	307	630	26·59
2	Bhusáwal	24,933	288	309	597	23·94
3	Chopda	16,930	203	187	390	23·04
4	Dharangaon	14,824	258	180	438	29·54
5	Párola	12,079	265	228	493	40·81
6	Amalner	17,068	169	127	296	17·34
7	Erandol	12,489	266	234	500	40·04
8	Nasirabad	12,188	329	286	615	50·46
9	Chálisgaon	11,990	205	207	412	34·36
10	Yawal	10,888	143	113	256	23·51
	West Khandesh District.					
11	Dhulia	30,061	573	455	1,028	34·20
12	Nandurbár	13,842	267	219	486	35·11
	Násik District.					
13	Násik	42,715	707	664	1,371	32·10
14	Yeola	13,911	239	153	392	28·18
15	Málegaon	23,711	452	382	834	35·17
16	Igatpuri	9,977	127	97	224	22·45
17	Manmád	11,866	129	120	249	20·98
18	Trimbak	4,538	53	60	113	24·90
19	Deoláli Cantonment	12,640	21	12	33	2·61
	Thana District.					
20	Thána	22,116	161	155	316	14·29
21	Bhiwandi	12,188	213	190	403	33·07
22	Kalyán	17,573	268	237	505	28·74
23	Bassein	10,364	168	163	331	31·94
	Bombay Suburban District.					
24	Bándra	28,738	319	271	590	0·53
25	Kurla	26,059	178	154	332	12·74
26	Santa Cruz Cantonment	4,701	2	2	4	85

No. VI—*contd.*

5	6	7	8	9	10	11 INJURIES (*continued on next page*).	
						Suicide.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Male.	Female.
1	16	8	144	38	79	...	...
34	11	10	259	27	52	...	...
99	17	256	114	16	37	...	...
24	39	106	174	52	63	1	...
34	16	...	224	30	56	...	...
10	5	61	92	18	67	...	..
7	...	1	138	41	80	...	...
50	...	...	168	30	87	...	...
...	14	...	187	16	47	...	...
	...	71	115	17	9	...	...
1	38	17	101	56	129	...	...
...	1	...	33	26	82	...	...
12	16	...	229	71	327	4	...
8	21	...	299	19	65	...	1
27	51	...	183	40	82	...	...
2	6	...	56	9	35	...	...
...	3	...	106	15	33	...	...
...	...	...	33	6	25	...	..
...	5	...	3	4	35	..	...
...	14	4	245	15	127	2	1
...	18	5	58	31	136	...	1
..	36	...	66	39	191	1	...
...	3	47	86	4	32	...	...
...	22	3	68	29	113	1	...
...	17	...	324	35	45	...	...
...	..	...	...	1	1	...	...

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1	2	11 INJURIES—*contd.*				12	13
No.	Districts and Towns.	ound-ing or Acci-dent.	Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes	Total deaths from all causes.
	B.—TOWNS.						
	East Khandesh District.						
1	Jalgaon ...	11	1	...	12	186	484
2	Bhusawal ...	10	...	...	10	228	631
3	Chopda ...	2	...	1	3	122	664
4	Dharangaon ...	6	...	...	7	173	638
5	Parola ...	2	...	...	2	87	449
6	Amalner ...	3	1	...	4	62	319
7	Erandol ...	5	2	...	7	125	399
8	Nasirabad ...	1	...	...	1	156	492
9	Chalisgaon ...	4	...	...	4	80	348
10	Yawal		1	...	1	33	248
	West Khandesh District.						
11	Dhulia ...	10	1	1	12	378	732
12	Nandurbar ...	2	...	...	2	192	336
	Nasik District.						
13	Nasik ...	24	...	...	28	721	1,404
14	Yeola ...	3	...	...	4	55	471
15	Malegaon ...	3	1	1	5	211	599
16	Igatpuri ...	3	1	...	4	51	163
17	Manmad ...	4	...	...	4	47	208
18	Trimbak ...	1	...	...	1	25	90
19	Deolali Cantonment ...	1	...	...	1	52	100
	Thana District.						
20	Thana ...	12	...	2	17	85	507
21	Bhiwandi ...	5	1	...	7	135	390
22	Kalyan ...	4	...	...	5	100	437
23	Bassein ...	2	...	...	2	82	256
	Bombay Suburban District.						
24	Bandra ...	7	...	...	8	208	451
25	Kurla ...	3	...	...	3	62	486
26	Santa Cruz Cantonment		...	...	...	2	4

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all causes. For the year.	From all causes. Mean of previous five years.
·04	·68	·34	6·08	1·60	3·34	·50	7·85	20·43	20·69
1·36	·44	·40	10·39	1·08	2·09	·40	9·15	25·31	23·72
5·85	1·00	15·12	6·73	·94	2·19	·18	7·21	39·22	26·17
1·62	2·63	7·15	11·74	3·51	4·25	·47	11·67	43·04	33·23
2·81	1·32	...	18·55	2·48	4·64	·17	7·20	37·17	35·24
·59	·29	3·57	5·39	1·06	3·93	·23	3·63	18·69	22·10
·56	...	·08	11·05	3·28	6·41	·56	10·01	31·95	35·06
4·10	...	...	13·79	2·46	7·14	·08	12·80	40·37	30·05
...	1·17	...	15·60	1·33	3·92	·33	6·67	29·02	26·72
·19	...	6·52	10·56	1·56	·83	·09	3·03	22·78	Not available.
·03	1·26	·57	3·36	1·86	4·29	·40	12·58	24·35	30·55
...	·07	...	2·38	1·88	5·92	·15	13·87	24·27	25·04
·28	·37	...	5·36	1·66	7·66	·66	16·88	32·87	36·19
·58	1·51	...	21·49	1·37	4·67	·29	3·95	33·86	32·90
1·14	2·15	...	7·92	1·68	3·46	·21	8·90	25·26	29·84
·20	·60	...	5·62	·90	3·51	·40	5·11	16·34	18·52
...	·25	...	8·94	1·26	2·78	·34	3·96	17·53	17·29
...	...	...	7·27	1·32	5·51	·22	5·51	19·83	29·81
...	·39	...	·24	·32	2·77	·08	4·11	7·91	32·19
...	·63	·18	11·08	·68	5·74	·77	3·84	22·92	37·75
...	1·48	·41	4·76	2·54	11·16	·57	11·08	32·00	29·50
...	2·05	...	3·76	2·22	10·87	·28	5·69	24·87	28·36
..	·29	4·53	8·30	·39	3·08	·19	7·92	24·70	28·37
...	·76	·10	2·37	1·01	3·93	·28	7·24	15·69	26·51
...	·65	...	12·43	1·34	1·73	·12	2·38	18·65	25·36
...	...	...	...	·21	·21	...	·43	·85	1·17

1	2	3	4			
			Births.			
No.	Districts and Towns.	Population according to Census of 1921.	Male.	Female.	Total.	Birth-rate.
	B.—TOWNS—*contd.*					
	Kolaba District.					
27	Alibág	5,253	55	62	117	22·27
28	Panwel	8,622	92	62	154	17·86
29	Mahád	7,192	51	58	109	15·16
30	Uran	8,135	72	55	127	15·61
31	City of Bombay	1,148,815	11,068	10,389	21,457	18·68
	Ahmednagar District.					
32	Ahmednagar	33,138	296	283	579	17·47
33	Sangamner	12,737	206	185	391	30·70
34	Ahmednagar Cantonment	10,997	140	149	289	26·26
	Poona District.					
35	Poona City	133,122	978	867	1,845	13·86
36	Poona Suburban	13,971	87	88	175	12·53
37	Bárámati	11,905	153	160	313	26·29
38	Khed	7,013	97	67	164	23·39
39	Lonávla	10,471	119	87	206	19·67
40	Junnár	7,376	96	83	179	24·27
41	Poona Cantonment	25,498	51	49	100	3·92
42	Kirkee do.	7,991	64	68	132	16·52
	Sholapur District.					
43	Sholápur	119,347	1,867	1,762	3,629	30·41
44	Bársi	22,074	373	315	688	31·17
45	Pandharpur	25,210	409	304	713	28·28
	Satara District.					
46	Sátara	22,454	162	152	314	13·98
47	Wái	10,208	135	120	255	24·98
48	Karád	11,255	110	76	186	16·53
49	Ashta	9,016	139	115	254	28·17
50	Islámpur	7,915	110	88	198	25·02
	Ratnagiri District.					
51	Ratnágiri	18,286	188	206	394	21·55
52	Vengurla	19,126	359	347	706	36·91
53	Málwan	22,213	335	304	639	28·77
54	Chiplun	11,005	199	149	348	31·62

No. VI—*contd.*

5	6	7	8	9	10	11 INJURIES— *(continued on next page).*	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.	
						Male.	Female.
...	...	...	48	4	18	...	1
...	45	19	105	6	24	...	...
...	36	...	39	1	23	...	...
...	7	...	41	7	37	...	...
34	1,231	409	3,867	3,513	15,761	66	35
...	4	2	61	22	222	...	2
6	...	...	56	17	39	...	...
..	...	...	56	19	62	...	2
19	606	15	778	311	2,236	2	1
...	9	...	206	39	41	...	
...	4	...	98	23	41	1	
...	1	...	48	3	52	...	
1	3	...	85	13	55	...	
...	20	...	41	10	38	1	
...	8	2	159	37	135	...	
1	3	...	8	18	132	...	1
15	193	683	1,763	293	471	2	...
10	104	49	606	68	36	...	...
80	6	...	816	186	147	4	...
9	5	...	111	29	119	...	1
1	4	36	53	9	28	...	...
...	1	172	16	10	8	...	...
...	...	...	29	17	15	...	...
...	1	1	20	10	53	...	...
...	25	14	72	16	52	...	..
...	2	...	104	15	94	...	..
..	12	...	101	35	87	...	..
...	32	1	77	7	52	...	...

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1	2	11 INJURIES—*contd.*				12	13
No.	Districts and Towns.	Wounding or Accident.	Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.
	B.—TOWNS—*contd.*						
	Kolaba District.						
27	Alibag ...	...	...	...	1	27	28
28	Panwel ...	3	1	...	4	65	268
29	Mahad ...	2	...	2	4	51	154
30	Uran ...	4	...	...	4	39	135
31	City of Bombay ...	709	5	...	815	12,787	38,417
	Ahmednagar District.						
32	Ahmednagar ...	4	...	...	6	213	53
33	Sangamner ...	2	1	...	3	116	237
34	Ahmednagar Cantonment ...	2	1	...	5	72	214
	Poona District.						
35	Poona City ...	28	...	2	33	2,067	6,055
36	Poona Suburban ...	1	...	...	1	61	357
37	Baramati ...	3	1	...	5	80	251
38	Khed ...	2	...	1	3	29	136
39	Lonavla ...	6	...	...	6	57	220
40	Junnar ...	7	...	1	9	31	149
41	Poona Cantonment ...	3	...	...	4	108	453
42	Kirkee do. ...	...	...	...	1	80	243
	Sholapur District.						
43	Sholapur ...	44	3	3	52	1,205	4,675
44	Barsi ...	10	...	1	11	158	1,042
45	Pandharpur ...	18	1	...	23	474	1,732
	Satara District.						
46	Satara ...	9	3	...	13	277	563
47	Wai ...	6	...	...	6	91	229
48	Karad ...	1	...	...	1	75	263
49	Ashta ...	3	...	...	3	74	139
50	Islampur ...	3	...	...	3	43	131
	Ratnagiri District.						
51	Ratnagiri ...	2	1	...	3	110	229
52	Vengurla ...	8	1	...	9	238	461
53	Malwan ...	2	3	...	5	234	474
54	Chiplun ...	5	2	...	7	38	214

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-Pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all causes	
								For the year.	Mean of previous five years.
...	...	...	9·14	·76	3·43	·19	5·14	18·66	30·67
...	5·22	2·20	12·18	·70	2·78	·46	7·54	31·08	22·85
...	5·00	...	5·42	·14	3·20	·56	7·09	21·41	21·14
...	·86	...	5·04	·86	4·55	·49	4·79	16·59	19·37
·02	1·07	·36	3·37	3·06	13·72	·71	11·13	33·44	45·75
...	·12	·06	1·84	·66	6·70	·18	6·43	15·99	26·09
·47	...	...	4·40	1·33	3·06	·24	9·11	18·61	17·58
...	...	...	5·09	1·33	5·64	·45	6·55	19·46	25·00
·14	4·55	·11	5·84	2·34	16·80	·25	15·53	45·56	47·20
...	·64	...	14·75	2·79	2·93	·07	4·37	25·55	12·93
...	·34	...	8·23	1·93	3·44	·42	6·72	21·08	26·30
...	·14	...	6·84	·43	7·41	·43	4·14	19·39	22·25
·10	·29	...	8·12	1·24	5·25	·57	5·44	21·01	27·93
...	2·71	...	5·56	1·36	5·15	1·22	4·20	20·20	19·25
...	·31	·08	6·24	1·45	5·29	·16	4·24	17·77	15·66
·12	·38	...	1·00	2·25	16·52	·13	10·01	30·41	30·36
·12	1·62	5·72	14·77	2·45	3·95	·44	10·10	39·17	48·60
·45	4·71	2·22	27·45	3·08	1·63	·50	7·16	47·20	41·53
3·18	·24	...	32·37	7·38	5·83	·90	19·80	68·70	51·15
·40	·23	...	4·94	1·30	5·29	·58	12·34	25·07	34·97
10	·39	3·53	5·19	·89	2·74	·59	8·02	22·34	25·15
...	·09	15·20	1·42	·89	·71	·09	6·66	25·14	11·08
...	...	...	3·22	1·89	1·66	·33	8·21	15·31	13·58
...	·13	·13	2·53	1·26	6·69	·38	5·43	16·55	22·80
...	1·37	·77	3·94	·87	2·84	·16	6·02	15·97	20·35
...	·11	...	5·44	·78	4·92	·47	12·44	24·16	27·53
...	·54	...	4·55	1·58	3·92	·22	10·53	21·34	22·73
...	2·91	·09	7·00	·64	4·72	·64	3·15	19·15	19·56

P 1—) *ap*

1	2	3	4			
			Births.			
No.	Districts and Towns.	Population according to Census of 1921.	Male.	Female.	Total.	Birth rate.
	B.—TOWNS—*contd.*					
	Belgaum District.					
55	Belgaum ...	36,214	567	520	1,087	30·02
56	Gokak ...	9,969	244	187	431	43·15
57	Athni ...	13,538	166	178	344	25·41
58	Nipani ...	11,878	210	183	393	33·09
59	Belgaum Cantonment ...	6,880	11	10	21	3·05
	Dharwar District.					
60	Dharwar ...	34,327	412	436	848	24·70
61	Hubli ...	69,140	1,059	983	2,042	29·53
62	Gadag-Bettigeri ...	41,158	747	659	1,406	34·16
63	Ranebennur ...	13,930	291	284	575	41·28
64	Nawalgund ...	7,089	114	106	220	31·03
	Bijapur District.					
65	Bijapur ...	32,471	543	469	1,012	31·17
66	Bagalkot ...	19,471	384	361	745	38·26
67	Guledgud ...	14,760	332	328	660	44·72
68	Ilkal ...	11,856	195	180	375	31·63
	Kanara District.					
69	Karwar ...	14,463	224	186	410	28·35
70	Kumta ...	14,291	203	186	389	27·22
71	Gokarn ...	8,307	127	137	264	31·78
72	Honawar ...	7,035	150	163	313	44·49
73	Bhatkal ...	7,134	130	112	242	33·92
	Surat District.					
74	Surat ...	117,428	2,028	1,827	3,855	33·83
75	Bulsar ...	19,681	299	270	569	28·91
76	Rander ...	10,547	119	93	212	20·10
	Broach District.					
77	Broach ...	42,626	917	916	1,833	43·00
78	Jambusar ...	10,217	245	252	497	48·64
79	Ankleshwar ...	11,756	243	232	475	40·40

No. VI—*contd.*

5	6	7	8	9	10	11 Injuries—*(continued on next page.)*	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Suicide.	
						Male.	Female.
...	3	5	187	43	165	1	1
26	...	33	61	51	36	2	...
2	...	...	99	34	58	1	...
...	...	8	54	21	46	...	...
...	1	1	14	2	4	...	...
1	5	46	230	70	230	...	...
10	...	2	284	75	423	1	...
34	5	1	298	43	394	3	...
25	5	19	136	23	81	...	...
2	...	36	20	6	24	1	1
3	6	86	158	65	175	...	...
25	2	11	211	70	93	...	...
61	..	...	184	5	76	1	...
129	...	...	118	2	76	1	...
...	2	...	75	14	23	...	...
...	1	...	52	28	39	...	...
...	...	...	24	32	26	...	...
...	...	...	52	9	7	...	...
...	...	...	47	34	20	...	...
...	54	...	291	282	1,541	1	2
...	3	...	21	12	146	2	4
...	23	...	107	5	43	...	...
...	..	...	218	46	467	1	...
...	1	...	166	5	133	1	...
...	...	...	214	1	38	...	...

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1	2	11				12	13
		INJURIES—*contd.*					
No.	Districts and Towns.	Wounding or accident.	Snake-bite, or killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.
	B.—TOWNS—*contd.*						
	Belgaum District.						
55	Belgaum ...	18	1	4	25	434	862
56	Gokak ...	4	...	...	6	109	332
57	Athni ...	6	...	...	7	55	255
58	Nipani ...	4	...	...	4	63	196
59	Belgaum Cantonment ...	...	...	...	...	24	46
	Dharwar District.						
60	Dharwar ..	12	...	1	13	391	986
61	Hubli ...	29	1	...	31	626	1,521
62	Gadag-Bettigeri ...	17	...	...	20	557	1,352
63	Ranebennur ...	7	...	...	7	265	561
64	Nawalgund ...	1	...	...	3	80	171
	Bijapur District.						
65	Bijapur ...	17	...	...	17	564	1,074
66	Bagalkot ...	5	...	1	6	306	724
67	Guledgud ..	5	...	...	6	338	670
68	Ilkal ...	3	1	...	5	303	633
	Kanara District.						
69	Karwar ...	...	...	...	...	124	238
70	Kumta ...	2	...	...	2	116	238
71	Gokarn ...	4	...	...	4	88	174
72	Honawar ...	2	...	...	2	74	144
73	Bhatkal ...	2	...	...	2	59	162
	Surat District.						
74	Surat ...	32	...	1	3[illegible]	1,606	3,810
75	Bulsar ...	4	...	...	10	132	324
76	Rander ...	...	...	...	...	86	264
	Broach District.						
77	Broach ...	19	1	1	22	417	1,160
78	Jambusar ...	4	...	1	6	34	345
79	Ankleshwar ...	5	...	...	5	75	333

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all causes. For the year.	From all causes. Mean of previous five years.
.....	·08	·14	5·16	1·19	4·56	·69	11·98	23·80	29·65
2·61	...	3·30	6·11	5·11	3·61	·60	10·92	32·26	29·33
·15	...	...	7·31	2·51	4·29	·52	4·06	18·84	17·59
.....	...	·67	4·55	1·77	3·57	·31	5·30	16·50	16·44
.....	·15	·15	2·03	·30	59	...	3·49	6·69	12·91
·08	·14	1·34	6·70	2·04	6·70	·38	11·39	28·72	31·70
·14	...	·03	4·11	1·08	6·12	·45	10·07	22·00	33·37
·83	·12	·02	7·24	1·05	9·57	·49	13·53	32·85	31·23
1·80	·36	1·36	9·76	1·65	5·82	·50	19·02	40·27	31·59
·28	...	5·08	2·82	·84	3·89	·42	11·28	24·12	19·90
·09	·19	2·65	4·87	2·00	5·39	·52	17·37	33·08	22·74
1·28	·10	·56	10·84	3·59	4·78	·31	15·72	37·18	32·53
4·13	...	...	12·47	·34	5·15	·40	22·90	45·39	26·44
10·88	...	...	9·95	·17	6·41	·42	25·56	53·39	33·23
.....	·14	...	5·19	·97	1·59	...	8·57	16·46	11·14
.....	·07	...	3·64	1·96	2·73	·14	8·12	16·65	21·14
.....	...	...	2·89	3·85	3·13	·48	10·60	20·95	31·52
.....	...	...	6·59	4·77	2·80	·28	8·27	22·71	21·74
.....	...	...	6·59	4·77	2·80	·28	8·27	22·71	22·27
.....	·46	...	2·48	2·40	13·12	·31	13·68	32·45	31·50
.....	·15	...	1·07	·61	7·42	·51	6·70	16·46	19·64
.....	2·18	...	10·15	·47	4·08	...	8·15	25·03	23·99
.....	...	...	5·11	1·08	10·72	·52	9·78	27·21	31·54
.....	·10	...	16·24	·49	13·02	·58	3·34	33·77	30·00
.....	...	...	18·20	·08	3·24	·43	6·38	28·33	29·45

1	2	3	4			
			Births.			
No.	Districts and Towns.	Population according to Census of 1921.	Male.	Female.	Total.	Birth rate.
	B.—TOWNS—*contd.*					
	Kaira District.					
80	Kaira ...	8,277	133	125	258	31·17
81	Mehmedabad ...	6,236	146	120	266	42·66
82	Nadiad ...	31,919	588	514	1,102	34·52
83	Borsad ...	12,113	328	290	618	51·02
84	Anand ...	11,024	181	126	307	27·85
85	Umreth ...	14,024	335	309	644	45·92
86	Dakore ...	7,990	145	142	287	35·92
87	Kapadvanj ...	14,794	325	310	635	42·92
	Panch Mahals District.					
88	Godhra ...	26,969	314	249	563	20·88
89	Dohad ...	16,071	316	285	601	37·40
	Ahmedabad District.					
90	Ahmedabad ...	2,70,599	5,741	5,400	11,141	41·17
91	Dhandhuka ...	8,056	189	178	367	45·56
92	Viramgaon ...	26,252	415	418	833	31·73
93	Dholka ...	12,513	291	274	565	45·15
94	Ahmedabad Cantonment. ...	1,745	16	7	23	13·18
	Karachi District.					
95	Karachi ...	199,014	4,284	4,035	8,319	41·80
96	Tatta ...	8,470	78	65	143	16·88
97	Kotri ...	9,072	75	48	123	13·56
98	Karachi Cantonment ...	6,525	98	117	215	32·95
	Hyderabad District.					
99	Hyderabad ...	72,625	1,601	1,398	2,999	41·29
100	Halla ...	5,757	73	48	121	21·02
101	Matiari ...	4,638	71	29	100	21·56
102	Hyderabad Cantonment ...	3,760	20	21	41	10·90
	Thar and Parkar District.					
103	Umarkot ...	4,199	33	24	57	13·57
104	Mirpurkhas ...	5,765	15	6	21	3·64

No. VI—*contd.*

5	6	7	8	9	10	11 Injuries—*(continued on next page.)*	
						Suicide.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory. Diseases.	Male.	Female.
.....	.....	.....	65	13	71	...	...
.....	4	.....	60	13	56	...	...
.....	108	.....	606	9	237	...	...
.....	7	.....	213	77	40	...	...
.....	16	.....	191	19	23	...	...
.....	8	.....	136	7	194	1	...
.....	20	.....	132	22	64	1	...
.....	8	.....	200	11	173	...	...
.....	18	.....	306	.....	20	...	...
.....	.....	.....	281	8	11	...	...
19	714	.....	1,875	508	4,198	4	2
.....	.....	.....	91	5	64	...	...
.....	16	.....	386	11	265	...	...
.....	.....	.....	182	17	66	...	...
.....	1	.....	30	1	6	1	...
	119	119	1,386	230	1,924	2	1
.....	9	.....	65	4	50	...	...
.....	7	.....	71	1	25	...	...
.....	.....	.....	22	4	10	...	...
1	332	1	736	81	900	1	...
16	8	.....	56	.....	2	...	...
.....	.....	.....	44	.....	12	...	...
.....	.....	.....	22	.....	1	...	...
.....	2	.....	43	4	64	...	...
1	6	.....	75	6	69	...	...

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No.	2 Districts and Towns.	11 Injuries—contd. Wounding or accident.	Snake-bite, or killed by wild beasts.	Rabies.	Total	12 All other causes.	13 Total deaths from all causes.
	B.—Towns—*contd.*						
	Kaira District.						
80	Kaira ...	3	...	1	4	61	214
81	Mehmedabad ...	4	...	...	4	84	221
82	Nadiad ..	23	1	1	25	126	1,111
83	Borsad ...	...	...	...	...	132	469
84	Anand ...	2	...	...	2	61	312
85	Umreth ..	3	...	...	4	201	550
86	Dakore ...	2	...	...	3	46	287
87	Kapadvanj	2	...	...	2	66	460
	Panch Mahals District.						
88	Godhra ...	...	1	...	1	70	415
89	Dohad ...	1	1	...	2	86	388
	Ahmedabad District.						
90	Ahmedabad ...	133	1	6	146	3,317	10,777
91	Dhandhuka ...	5	...	...	5	40	205
92	Viramgaon ...	1	1	...	2	50	730
93	Dholka ...	4	1	...	5	74	344
94	Ahmedabad Cantonment ...	...	...	...	1	...	39
	Karachi District.						
95	Karachi ...	105	1	2	111	2,145	6,034
96	Tatta ...	2	...	...	2	49	178
97	Kotri ...	3	...	...	3	10	117
98	Karachi Cantonment ...	2	...	...	2	44	82
	Hyderabad District.						
99	Hyderabad ...	36	...	...	37	528	2,606
100	Halla ..	1	...	...	1	8	91
101	Matiari ...	2	...	...	2	11	69
102	Hyderabad Cantonment ...	...	...	...	...	7	30
	Thar and Parkar District.						
103	Umarkot ...	...	...	...	...	28	141
104	Mirpurkhas ...	...	...	...	...	11	168

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all causes.	
								For the year.	Mean of previous five years.
.....	...	...	7·85	1·58	8·57	·48	7·37	25·85	27·21
.....	·64	...	9·62	2·09	8·98	·64	13·47	35·44	30·03
.....	3·38	...	13·99	·29	7·42	·78	3·95	34·81	36·67
.....	·58	...	17·59	6·35	3·30	...	10·90	38·72	37·26
.....	1·45	...	17·33	1·72	2·09	·18	5·53	28·30	25·06
.....	·57	...	9·70	·50	13·83	·29	14·33	39·22	34·13
.....	2·50	...	16·52	2·76	8·02	·38	5·76	35·92	38·45
.....	·54	...	13·52	·74	11·69	·14	4·46	31·09	33·01
.....	·67	...	11·35	.....	·74	·04	2·59	15·39	15·89
.....	...	...	17·49	·50	·68	·12	5·35	24·14	27·19
·07	2·64	...	6·93	1·88	15·51	·54	12·25	39·83	42·06
.....	...	...	11·30	·62	7·94	·62	4·97	25·45	32·40
.....	·61	...	14·70	·42	10·09	·08	1·91	27·81	32·60
.....	...	...	14·54	1·36	5·28	·40	5·91	27·49	29·45
.....	·57	...	17·19	·57	3·44	·57	.....	22·34	17·44
.....	·60	·60	6·96	1·15	9·67	·56	10·78	30·32	38·13
1·06	...	...	7·68	·47	5·90	·24	5·67	21·02	23·32
.....	·79	...	7·83	·11	2·76	·33	1·10	12·90	17·35
.....	...	...	3·37	·61	1·58	·31	6·75	12·57	21·56
·01	4·43	·01	10·14	1·11	12·39	·51	7·27	35·89	28·23
2·78	1·39	...	9·72	.....	·34	·17	1·39	15·61	12·26
.....	...	...	9·49	.....	2·58	·43	2·38	14·88	21·29
.....	...	...	5·85	.....	·27	...	1·86	7·98	9·28
.....	·48	...	10·24	·95	15·24	...	6·67	33·58	21·27
·17	1·04	...	13·01	1·04	11·97	...	1·91	29·14	25·78

1	2	3	4			
			Births.			
No.	Districts and Towns.	Population according to Census of 1921.	Male.	Female.	Total.	Birth-rate.
	B.—TOWNS—*contd.*					
	Nawabshah District.					
105	Nawabshah ...	2,771	37	25	62	22·37
106	Tando Adam ...	12,966	151	113	264	20·36
	Larkana District.					
107	Larkana ...	17,700	345	321	666	37·63
108	Kambar ...	7,613	93	85	178	23·38
109	Ratodero ...	5,565	110	119	229	41·15
110	Sehwan ...	4,423	54	36	90	20·35
	Sukkur District.					
111	Sukkur ...	42,046	724	569	1,293	30·75
112	Shikarpur ...	55,347	1,030	763	1,793	32·40
113	Rohri ...	11,378	204	162	366	32·17
114	Gari Yasin ...	6,375	110	94	204	32·00
	Upper Sind Frontier District.					
115	Jacobabad ...	10,578	144	87	231	21·84
	Total of Towns ...	3,743,785	53,110	48,332	101,442	27·10
	Total for the Presidency ...	19,165,614	354,631	327,690	682,321	35·60

No. VI—*concld.*

5	6	7	8	9	10	11 Injuries—(*continued on next page*).	
						Suicide.	
Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory. Diseases.	Male.	Female.
.....	.....	.....	31	.....	51	.....	...
.....	5	.....	121	.....	15	1	...
7	.....	.....	233	7	19	3	...
18	.....	.....	164	1	4	.....	...
6	.....	.....	181	.....	1	.....	...
.....	.....	.....	59	.....	22	.....	...
1	.....	1	612	11	35	.....	...
.....	37	1	758	33	92	1	...
.....	.....	.....	142	12	29	.....	...
.....	4	.....	130	.....	1	.....	...
.....	10	.....	150	2	13	.....	...
883	4,282	2,362	26,145	7,518	35,294	116	58
8,236	11,152	9,214	214,563	28,926	91,103	338	213

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1	2	11				12	13
		INJURIES—*contd.*					
No.	Districts and Towns.	Wounding or accident.	Snake-bite or killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.
	B.—TOWNS—*concld.*						
	Nawabshah District.						
105	Nawabshah ...	...	...	...	..	2	84
106	Tando Adam ...	...	...	...	1	6	148
	Larkana District.						
107	Larkana ...	2	...	...	5	261	532
108	Kambar ...	1	...	...	1	8	196
109	Ratodero ...	...	...	...	...	2	190
110	Sehwan ...	4	...	...	4	31	116
	Sukkur District.						
111	Sukkur ...	20	2	1	23	117	800
112	Shikarpur ...	8	...	...	9	758	1,688
113	Rohri ...	3	...	...	3	27	213
114	Gari Yasin ...	1	...	...	1	...	136
	Upper Sind Frontier District.						
115	Jacobabad ...	...	...	...	...	60	23
	Total of Towns ...	1,590	45	35	1,844	38,080	116,408
	Total for the Presidency ...	5,310	1,268	245	7,374	159,008	529,576

No. VI.—*concld.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory Diseases.	Injuries.	All other causes.	From all causes.	
								For the year.	Mean of previous five years.
.....	...	...	11·19	.....	13·40	...	·72	30·31	16·61
.....	·39	...	9·33	.....	1·16	·08	·46	11·42	14·97
·39	...	...	13·16	·40	1·07	·28	14·75	30·06	27·92
2·36	...	...	21·54	·13	·53	·13	1·05	25·75	22·69
1·08	...	...	32·52	.....	·18	...	·36	34·14	23·50
.....	...	...	13·34	.....	4·97	·90	7·01	26·22	25·76
·02	...	·02	14·56	·26	·83	·55	2·78	19·02	21·51
.....	·67	·02	13·69	·60	1·66	·16	13·70	30·50	30·79
.....	...	...	12·48	1·06	2·55	·26	2·37	18·72	24·93
.....	·62	...	20·39	.....	·16	·16	...	21·33	24·77
.....	·95	...	14·18	·19	1·23	...	5·67	22·22	17·16
·24	1·14	·63	6·98	2·01	9·43	·49	10·17	31·09	35·79
·43	·58	·48	11·20	1·51	4·75	·39	8·30	27·63	27·34

ANNUAL FORM NO. VI (*a*)—DEATHS *registered from certain* *during the*

1	2	3	4		5	
			Enteric Fever.		Measles.	
No.	Districts and Towns.	Population according to Census of 1921.	Deaths.	Ratio.	Deaths.	Ratio.
	A.—DISTRICTS EXCLUDING TOWNS.					
	Western Registration District.					
1	East Khándesh	918,037	...	...	224	·25
2	West Khándesh	568,809	...	...	62	·11
3	Násik	705,858	...	...	70	·10
4	Thána	694,658	...	...	14	·02
5	Bombay Suburban	91,943	...	...	4	·05
6	Kolaba	533,270	1	·00	55	·10
	Central Registration District.					
7	Ahmednagar	667,106	145	·21	99	·15
8	Poona	770,334	80	·10	118	·15
9	Sholápur	574,999	61	·11	299	·52
10	Sátára	964,847	42	·05	123	·13
11	Ratnágiri	1,083,350	52	·06	77	·07
	Southern Registration District.					
12	Belgaum	871,163	264	·30	281	·32
13	Dhárwár	870,565	344	·40	204	·23
14	Bijápur	717,798	545	·76	68	·9
15	Kánara	350,246	242	·70	22	·06
	Gujarat Registration District.					
16	Surat	526,465	...	...	18	·03
17	Broach	243,112	...	...	41	·17
18	Kaira	604,528	...	...	71	·12
19	Panch Maháls	331,791	...	...	16	·05
20	Ahmedabad	568,759	...	...	97	·17
	Sind Registration District.					
21	Karáchi	307,576	40	·13	34	·11
22	Hyderabad	480,469	183	·38	57	·12
23	Thar and Párkar	386,343	109	·28	19	·05
24	Nawábshah	402,915	252	·63	166	·41
25	Lárkana	562,636	55	·10	40	·07
26	Sukkur ... —	394,216	64	·17	42	·10
27	Upper Sind Frontier	230,036	30	·13	7	·03
	Total of Districts ...	15,421,829	2,509	·16	2,328	·15

diseases in the DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *year 1924.*

6		7		8		9		10	
Relapsing Fever.		Kala Azar.		Malaria.		Other Fevers.		Influenza.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	...	...	66	·07	15,405	16·78	...	...
...	...	...	...	48	·08	7,779	13·68	...	...
...	...	...	...	406	·57	8,354	11·83	4	·01
...	...	...	...	474	·68	10,772	15·51	...	...
...	...	...	...	37	·40	936	10·18	...	...
...	...	...	...	208	·39	8,099	15·19	1	·00
...	...	...	...	2,075	3·11	2,313	3·47	...	...
...	...	...	...	3,618	4·70	6,074	7·88	12	·02
...	...	...	...	259	·45	6,531	11·35	...	...
...	...	...	...	242	·25	9,632	9·98	1	·00
...	...	...	...	156	·14	8,620	7·95	3	·00
...	...	...	...	2,134	2·45	3,221	3·70	51	·06
...	...	...	...	3,107	3·57	7,639	8·77	119	·14
20	·03	...	...	1,004	1·40	7,489	10·43	99	·14
...	...	...	...	1,568	4·47	2,232	6·37	7	·02
...	...	...	...	18	·03	4,582	8·70	1	·00
...	...	...	...	3	·01	3,361	13·83	...	...
...	...	...	...	...	...	5,245	8·67	...	...
...	...	...	...	4	·01	3,535	10·66	...	...
...	...	...	...	74	·13	8,118	14·27	...	...
...	...	...	...	2,835	9·22	451	1·46	5	·02
...	...	...	...	4,459	9·28	1,479	3·08	...	...
...	...	...	...	4,358	11·28	1,260	3·26	54	·14
...	...	...	...	5,223	12·96	1,040	2·58	...	...
...	...	...	...	5,935	10·53	1,306	2·32	20	·04
...	...	...	...	5,825	14·77	795	2·02	...	...
...	...	...	...	2,314	10·06	466	2·03	...	...
20	·00	...	...	46,450	3·01	136,734	8·87	377	·03

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1	2	11		12		13	
		Pneumonia.		Phthisis.		Other Respiratory Diseases.	
No.	Districts and Towns.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	A.—DISTRICTS EXCLUDING TOWNS—*concld.*						
	Western Registration District.						
1	East Khandesh	7	·01	263	·28	3,847	4·19
2	West Khandesh	3	·01	112	·19	1,741	3·06
3	Nasik	50	·07	144	·20	3,117	4·42
4	Thana	156	·22	565	·81	557	·81
5	Bombay Suburban ...	41	·45	62	·67	75	·82
6	Kolaba	64	·12	1,031	1·93	381	·72
	Central Registration District.						
7	Ahmednagar	11	·02	309	·46	3,294	4·94
8	Poona	189	·25	624	·81	2,820	3·66
9	Sholapur	13	·02	256	·45	1,353	2·35
10	Satara	22	·02	588	·61	1,400	1·45
11	Ratnágiri	11	·01	2,614	2·41	1,965	1·82
	Southern Registration District.						
12	Belgaum	44	·05	740	·85	2,114	2·42
13	Dhárwár	12	·01	640	·74	2,135	2·45
14	Bijápur	6	·01	602	·84	1,871	2·60
15	Kánara	10	·03	224	·64	483	1·38
	Gujarat Registration District.						
16	Surat	1,131	2·15	542	1·03	3,518	6·68
17	Broach	375	1·54	251	1·03	1,586	6·52
18	Kaira	259	·43	1,161	1·92	4,346	7·19
19	Panch Mahás	156	·47	230	·69	743	2·24
20	Ahmedabad	325	·57	898	1·58	1,368	2·41
	Sind Registration District.						
21	Karáchi	176	·57	72	·24	40	·13
22	Hyderabad	375	·78	72	·15	29	·06
23	Thar and Párkar	908	2·35	45	·12	50	·13
24	Nawábshah	316	·78	38	·09	24	·06
25	Lárkana	60	·11	32	·06	7	·01
26	Sukkur	8	·02	20	·05	26	·07
27	Upper Sind Frontier	36	·16	8	·03	12	·05
	Total of Districts ...	4,764	·31	12,143	·79	38·902	2·52

No. VI (*a*)—*contd.*

14		15		16	17			18	19
Dysentery.		Diarrhœa.		Deaths from child birth.	Deaths under 1 year.			Infant mortality rate per 1,000 births.	No.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.		
211	·23	1,653	1·80	113	5,596	4,827	10,423	234·32	1
6	·01	300	·53	22	2,908	2,468	5,376	197·43	2
91	·13	1,237	1·75	62	3,942	3,047	6,989	208·16	3
127	·18	236	·34	214	1,935	1,802	3,737	153·33	4
26	·28	116	1·26	28	149	146	295	161·64	5
48	·09	362	·68	118	1,926	1,647	3,573	167·76	6
1,297	1·97	938	1·41	183	3,534	2,739	6,273	193·76	7
79	·10	1,759	2·28	148	3,232	2,588	5,820	198·57	8
6	·01	1,742	3·03	89	2,576	2,054	4,630	190·43	9
799	·83	1,250	1·29	107	3,349	2,877	6,226	159·33	10
601	·56	336	·31	230	2,217	1,883	4,100	94·45	11
331	·38	2,612	3·00	130	2,861	2,334	5,195	142·62	12
177	·20	870	1·00	245	3,059	2,605	5,664	172·47	13
188	·26	1,655	2·31	124	2,390	1,909	4,299	161·17	14
261	·74	550	1·57	317	1,548	1,302	2,850	206·72	15
77	·15	176	·34	30	1,947	1,677	3,624	150·93	16
16	·07	134	·55	23	1,293	1,169	2,462	201·92	17
139	·23	458	·76	34	2,116	1,937	4,053	174·59	18
14	·04	132	·40	78	793	681	1,474	105·82	19
95	·17	179	·31	11	1,856	1,547	3,403	153·63	20
8	·03	7	·02	54	489	464	953	224·82	21
7	·01	17	·04	97	741	659	1,400	217·43	22
14	·04	1	·00	77	604	532	1,136	152·12	23
5	·01	10	·03	137	958	729	1,687	166·68	24
3	·01	8	·02	108	1,006	787	1,793	158·83	25
14	·03	14	·03	87	1,069	998	2,067	208·22	26
...	...	16	·07	34	375	352	727	148·10	27
4,640	·30	16,768	1·09	2,900	54,469	45,760	100,229	172·55	

1	2	3	4		5	
No.	Districts and Towns.	Population according to Census of 1921.	Enteric Fever.		Measles.	
			Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS.					
	East Khandesh District.					
1	Jalgaon	23,696	...	...	15	·64
2	Bhusáwal	24,993	1	·04	5	·20
3	Chopda	16,930	...	...	13	·77
4	Dharangaon	14,824	...	...	28	1·89
5	Paroła	12,079	...	...	45	3·73
6	Amálner	17,068	...	...	...	...
7	Erandol	12,489	...	...	30	2·40
8	Nasirabad	12,188	...	...	...	...
9	Chálisgaon	11,990	...	...	35	2·92
10	Yawal ...	10,838	...	...	16	1·47
	West Khandesh District.					
11	Dhulia	30,061	...	...	11	·36
12	Nandurbar	13,842	...	...	...	...
	Nasik District.					
13	Násik	42,715	...	...	11	·26
14	Yeola	13,911	...	...	...	...
15	Málogaon	23,711	...	...	11	·47
16	Igatpuri	9,977	...	...	...	...
17	Manmad	11,866	...	...	...	...
18	Trimbak	4,538	...	...	...	...
19	Deolali Cantonment	12,640	...	...	...	...
	Thana District.					
20	Thána	22,116	...	...	2	·09
21	Bhiwandi	12,188	...	...	4	·33
22	Kalyán	17,572	...	...	4	·23
23	Bassein	10,364	...	...	...	...
	Bombay Suburban District.					
24	Bandra	28,738	8	·28	...	...
25	Kurla	26,059	...	...	...	...
26	Santa Cruz Cantonment	4,701	...	...	...	...
	Kolaba District.					
27	Alibág	5,263	...	...	1	·19
28	Panvel	8,622	...	...	4	·46
29	Mahád	7,192	...	...	...	...

No. VI (*a*)—*contd.*

6 Relapsing Fever.		7 Kala Azar.		8 Malaria.		9 Other Fevers.		10 Influenza.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	...	...	...	...	129	5·44	...	...
...	...	...	...	...	...	253	10·15	...	...
...	...	...	...	...	...	101	5·96	...	...
...	...	...	...	...	...	146	9·85	...	...
...	...	...	...	...	...	179	14·82	...	...
...	...	...	...	...	...	91	5·38	1	·06
...	...	...	...	11	·88	97	7·77	...	...
...	...	...	...	...	...	168	13·79	...	...
...	...	...	...	1	·09	151	12·59	...	...
...	...	...	...	44	4·04	55	5·05	...	...
...	...	...	...	2	·07	18	2·93	...	...
...	...	...	...	...	...	32	2·31		·07
...	...	...	...	9	·21	209	4·89	...	...
...	...	...	...	...	...	299	21·49	...	...
...	...	...	...	19	·80	153	6·45	...	...
...	...	...	...	1	·10	55	5·52	...	...
...	...	...	...	16	1·35	90	7·58	...	...
...	...	...	...	...	...	33	7·27	...	...
...	...	...	...	2	·16	1	·08	...	...
...	...	...	...	1	·05	241	10·89	1	·05
...	...	...	...	17	1·39	37	3·04	...	...
...	...	...	...	15	·85	47	2·68	...	...
...	...	...	...	...	...	86	8·30	...	...
...	...	...	...	24	·84	36	1·25	...	...
...	...	...	...	...	...	324	12·43	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	47	8·95	...	...
...	...	...	...	14	1·63	87	10·69	...	...
...	...	...	...	...	...	39	5·42	...	...

ANNUAL FORM

1	2	11		12		13	
		Pneumonia.		Phthisis.		Other Respiratory diseases.	
No.	Districts and Towns.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS—*continued.*						
	East Khandesh District.						
1	Jalgaon	5	·21	25	1·06	49	2·07
2	Bhusáwal	9	·37	4	·16	39	1·56
3	Chopda	...	...	1	·06	36	2·13
4	Dharangaon	...	...	2	·13	61	4·12
5	Parola	1	·08	1	·08	54	4·48
6	Amálner	1	·06	2	·12	64	3·75
7	Erandol	...	...	26	2·08	54	4·33
8	Nasirabad	...	...	3	·25	84	6·89
9	Chálisgaon	...	...	8	·67	39	3·25
10	Yawal	...	...	3	·28	6	·55
	West Khandesh District.						
11	Dhulia	11	·36	26	·86	92	3·07
12	Nandurbar	...	...	10	·72	72	5·20
	Nasik District.						
13	Násik	61	1·44	22	·51	244	5·71
14	Yeola	...	...	5	·36	60	4·31
15	Málegaon	2	·09	2	·09	78	3·28
16	Igatpuri	3	·30	7	·70	25	2·51
17	Manmad	...	...	9	·76	24	2·02
18	Trimbak	2	·44	4	·88	19	4·19
19	Deolali Cantonment	30	2·37	1	·08	4	·32
	Thana District.						
20	Thána	24	1·09	58	2·62	45	2·03
21	Bhiwandi	37	3·04	75	6·15	24	1·97
22	Kalyán	100	5·69	41	2·33	50	2·85
23	Bassein	10	·96	12	1·16	10	·96
	Bombay Suburban District.						
24	Bandra	54	1·88	26	·90	33	1·15
25	Kurla	4	·15	...	...	41	1·58
26	Santa Cruz Cantonment ...	1	·21	...	...	...	...
	Kolaba District.						
27	Alibág	...	...	12	2·29	6	1·14
28	Panvel	...	...	16	1·85	8	·93
29	Mahád	...	...	13	1·81	10	1·39

No. VI (a)—*contd.*

14		15		16	17			18	19
Dysentery.		Diarrhœa.			Deaths under 1 year.				
Deaths.	Ratio.	Deaths.	Ratio.	Deaths from child birth.	Male.	Female.	Total.	Infant mortality rate per 1,000 births.	No.
8	·33	30	1·27	9	78	64	142	225·40	1
3	·12	24	·96	3	76	80	156	261·31	2
1	·06	15	·88	...	39	45	84	215·38	3
1	·07	51	3·44	12	92	78	170	388·10	4
7	·58	23	1·90	7	74	61	135	273·83	5
3	·18	15	·88	1	29	18	47	158·78	6
10	·80	31	2·48	5	62	61	123	246·00	7
5	·41	25	2·05	2	60	52	112	182·11	8
3	·25	13	1·08	8	59	67	126	305·56	9
2	·18	15	1·38	2	30	14	44	171·88	10
...	...	56	1·86	2	122	94	216	210·12	11
...	...	26	1·88	3	47	34	81	166·67	12
24	·56	47	1·10	14	202	178	380	277·17	13
2	·15	17	1·22	...	56	38	94	239·80	14
4	·17	36	1·51	...	73	62	135	161·87	15
1	·10	8	·80	2	21	8	29	129·46	16
1	·08	14	1·18	...	28	16	44	176·71	17
...	...	6	1·32	...	7	9	16	141·59	18
2	·16	2	·16	...	11	7	18	545·45	19
1	·05	14	·63	11	50	31	81	256·33	20
1	·08	30	2·46	8	49	36	85	210·02	21
3	·17	36	2·05	13	50	42	92	182·18	22
3	·29	1	·10	8	20	17	37	111·78	23
15	·52	14	·49	6	62	51	113	191·52	24
35	1·34	...	...	8	48	43	91	274·10	25
...	...	1	·21	...	1	...	1	250·00	26
...	...	4	·76	1	4	3	7	59·83	27
4	·47	2	·23	3	15	14	29	188·31	28
...	...	1	·14	2	11	8	19	174·31	29

1	2	3	4		5	
No.	Districts and Towns.	Population according to Census of 1921.	Enteric Fever.		Measles.	
			Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS—*continued.*					
	Kolaba District—concluded.					
30	Uran	8,135	...	...	...	...
31	City of Bombay	1,148,815	160	·14	199	·17
	Ahmednagar District.					
32	Ahmednagar	33,138	12	·36	6	·18
33	Sangamner	12,737	1	·08	...	...
34	Ahmednagar Cantonment	10,997	2	·18	...	...
	Poona District.					
35	Poona City	133,122	95	·71	206	1·55
36	Poona Suburban	13,971	1	·07	5	·36
37	Baramati	11,905	1	·08	3	·25
38	Khed	7,013	...	..	...	...
39	Lonávla	10,471	1	·10	2	·19
40	Junnar	7,376	...	...	...	...
41	Poona Cantonment	25,498	...	...	...	...
42	Kirkee do.	7,991	...	...	1	·12
	Sholapur District.					
43	Sholápur	119,347	21	0·18	116	0·97
44	Bársi	22,074	...	...	10	·45
45	Pandharpur	25,210	2	0·08	65	2·58
	Satara District.					
46	Sátára	22,454	3	0·13	2	0·09
47	Wái	10,208	10	0·98	16	1·57
48	Karád	11,255	...	...	...	...
49	Ashta	9,016	...	...	...	...
50	Islámpur	7,915	...	...	...	...
	Ratnagiri District.					
51	Ratnágiri	18,286	6	·33	1	·06
52	Vengurla	19,126	4	·21	3	·16
53	Málwan	22,213	2	0·09	...	...
54	Chiplun	11,005	...	...	...	...
	Belgaum District.					
55	Belgaum	36,214	19	·52	11	·30
56	Gokák	9,989	2	·20	...	...
57	Athni	13,538	...	...	...	...
58	Nipáni	11,878	...	...	...	...
59	Belgaum Cantonment	6,880	...	...	...	...

No. VI (*a*)—*contd.*

6		7		8		9		10	
Relapsing Fever.		Kala Azar.		Malaria.		Other Fevers.		Influenza.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	...	...	1	·12	40	4·92	...	...
3	·00	...	...	465	·41	2,923	2·55	117	·10
...	...	...	...	24	·73	19	·57	...	...
...	...	...	...	46	3·61	9	·71	...	...
...	...	...	...	1	·09	52	4·73	1	·09
...	...	...	...	222	1·67	255	1·91	...	...
...	...	...	...	25	1·79	175	12·53	...	...
...	...	...	...	...	...	94	7·90	...	...
...	...	...	...	35	4·99	13	1·85	...	...
...	...	...	...	20	1·91	62	5·92	...	...
...	...	...	...	8	1·09	33	4·47	...	...
...	...	...	...	2	·08	157	6·16	...	...
...	...	...	...	6	·76	1	·12	...	...
...	...	...	...	11	0·09	1,615	13·53	...	...
...	...	...	...	3	0·14	593	26·86	...	...
...	...	...	...	3	0·12	746	29·59	...	...
...	...	...	...	1	0·04	105	4·68	...	...
...	...	...	...	1	0·09	26	2·55	...	...
...	...	...	...	...	...	16	1·42	...	...
...	...	...	...	...	...	29	3·22	...	...
...	...	...	...	1	0·13	19	2·40	...	...
...	...	...	...	3	·16	62	3·39	...	...
...	...	...	...	8	·42	89	4·65	...	...
...	...	...	...	1	·05	98	4·41	...	...
...	...	...	...	...	...	77	7·00	...	...
...	...	...	...	9	·25	143	3·95	5	·14
...	..	...	...	3	·30	56	5·61	...	...
...	...	...	...	5	·37	94	6·94	...	...
...	...	...	....	5	·42	49	4·13	...	...
...	...	...	...	...	...	14	2·03	...	...

ANNUAL FORM

1	2	11		12		13	
		Pneumonia.		Phthisis.		Other Respiratory diseases.	
No.	Districts and Towns.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS—*continued.*						
	Kolaba District—concluded.						
30	Uran	11	1·35	19	2·34	7	·86
31	City of Bombay	9,717	8·46	1,409	1·23	4,635	4·03
	Ahmednagar.						
32	Ahmednagar	16	·48	61	1·84	145	4·38
33	Sangamner	...	...	20	1·57	19	1·49
34	Ahmednagar Cantonment	10	·91	10	·91	42	3·82
	Poona District.						
35	Poona City	1,462	10·98	544	4·09	230	1·73
36	Poona Suburban	2	·14	5	·36	34	2·43
37	Baramati	1	·08	18	1·51	22	1·85
38	Khed	...	...	3	·43	49	6·98
39	Lonávla	12	1·15	12	1·15	31	3·95
40	Junnar	1	·13	16	2·17	21	2·85
41	Poona Cantonment	9	·35	44	1·72	82	3·22
42	Kirkee do.	79	9·89	3	·37	50	6·26
	Sholapur District.						
43	Sholapur	34	·28	169	1·42	268	2·25
44	Bársi	...	...	7	·32	29	1·31
45	Pandharpur	22	·87	41	1·63	84	3·33
	Satara District.						
46	Sátára	12	·53	62	2·76	45	2·00
47	Wái	1	·09	7	·69	20	1·96
48	Karád	2	·18	1	·09	5	·44
49	Ashta	...	...	3	·33	12	1·33
50	Islámpur	1	·13	10	1·26	42	5·30
	Ratnagiri District.						
51	Ratnágiri	4	·22	36	1·96	12	·66
52	Vengurla	15	·79	56	2·93	23	1·20
53	Málwan	1	·05	44	1·98	42	1·89
54	Chiplun	...	...	38	3·45	14	1·27
	Belgaum District.						
55	Belgaum	17	·47	105	2·90	43	1·19
56	Gokák	...	...	21	2·11	15	1·50
57	Athni	...	...	24	1·78	34	2·51
58	Nipáni	...	...	5	·42	41	3·45
59	Belgaum Cantonment	...	...	1	·15	3	·44

No. VI (*a*)—*contd.*

14		15		16	17			18	19
Dysentery.		Diarrhœa.		Deaths from child birth.	Deaths under 1 year.			Infant mortality rate per 1,000 births.	No.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.		
2	·25	5	·61	1	21	9	30	236·22	30
1,015	·88	2,498	2·18	129	4,768	4,312	9,080	423·17	31
17	·51	5	·15	16	60	30	90	155·44	32
12	·94	5	·39	6	20	17	37	94·63	33
16	1·46	3	·27	...	25	23	48	166·09	34
23	·17	288	2·17	69	1,035	887	1,922	1,041·73	35
1	·07	38	2·72	...	49	46	95	542·86	36
..	...	23	1·93	2	33	32	65	207·67	37
...	...	3	·43	1	6	9	15	91·46	38
5	·48	8	·76	...	28	23	51	247·57	39
...	...	10	1·36	2	7	9	16	89·39	40
4	·16	33	1·29	15	47	26	73	730·00	41
1	·12	17	2·13	...	38	37	70	530·30	42
4	·03	289	2·42	10	451	466	917	252·69	43
2	·09	66	2·99	...	145	145	290	421·51	44
4	·16	182	7·22	7	292	197	489	685·83	45
11	·50	18	·80	2	49	45	94	299·36	46
2	·20	7	·69	5	17	22	39	152·94	47
8	·71	2	·18	...	7	8	15	80·65	48
13	1·44	4	·45	1	13	7	20	78·74	49
2	·25	8	1·01	...	12	5	17	85·86	50
9	·49	7	·38	1	16	14	30	76·14	51
10	·52	5	·26	...	34	38	72	101·98	52
33	1·49	2	·09	1	37	25	62	97·03	53
6	·55	1	·09	...	13	9	22	63·22	54
11	·31	32	·88	4	85	68	153	140·75	55
4	·40	47	4·71	3	40	26	66	153·13	56
13	·96	21	1·55	1	4	9	13	37·79	57
1	·09	20	1·68	1	22	16	38	96·69	58
1	·15	1	·15	2	6	6	12	571·43	59

1	2	3	4		5	
			Enteric Fever.		Measles.	
No.	Districts and Towns.	Population according to Census of 1921.	Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS.—*continued.*					
	Dharwar District.					
60	Dhárwár	34,327	12	·35	33	·96
61	Hubli	69,140	1	·01	34	·49
62	Gadag Bettigeri	41,158	13	·32	19	·46
63	Ránebennur	13,930	19	1·36	18	1·29
64	Nawalgund	7,089	...	...	...	...
	Bijapur District.					
65	Bijápur	32,471	75	2·31	12	·37
66	Bágalkot	19,471	3	·16	...	...
67	Guledgud	14,760	...	...	...	...
68	Ilkal	11,856	21	1·77	...	...
	Kanara District.					
69	Kárwár	14,463	11	·76	2	·14
70	Kumta	14,291	3	·21	...	...
71	Gokarn	8,307	1	·12	...	...
72	Honáwar	7,035	1	·14	...	...
73	Bhatkal	7,134	...	...	...	..
	Surat District.					
74	Surat	117,423	22	·20	57	·48
75	Bulsar	19,681	5	·25	...	...
76	Ránder	10,547	...	...	...	...
	Broach District.					
77	Broach	42,626	...	...	37	·87
78	Jambusar	10,217	...	...	40	3·91
79	Ankleshwar	11,756	...	...	12	1·02
	Kaira District.					
80	Kaira	8,277	...	...	...	...
81	Mehmedabad	6,236	...	...	2	0·32
82	Nadiád	31,919	...	...	16	·50
83	Borsad	12,113	...	...	3	·25
84	Anand	11,024	...	...	...	...
85	Umreth	14,024	...	...	...	...
86	Dákore	7,900	...	...	7	·88
87	Kapadvanj	14,794	...	...	...	...

No. VI (*a*)—*contd.*

6 Relapsing Fever.		7 Kala Azar.		8 Malaria.		9 Other Fevers.		10 Influenza.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	...	...	23	·67	155	4·52	7	·20
...	...	...	...	46	·67	203	2·94	...	...
...	...	...	...	7	·17	258	6·27	1	·02
...	...	...	...	6	·43	62	4·45	31	2·23
...	...	...	...	8	1·13	12	1·69	...	...
...	...	...	...	48	1·48	23	·71	...	...
...	...	...	...	17	·87	191	9·81	...	...
..	...	...	...	13	·88	168	11·38	3	·21
...	...	...	...	24	2·02	53	4·47	20	1·69
...	...	...	..	49	3·39	13	·90	...	...
...	...	...	...	24	1·68	25	1·75	...	...
...	...	...	...	5	·60	18	2·17	...	...
..	...	...	...	1	·14	50	7·11	..	...
...	...	...	...	7	·98	40	5·61	...	...
...	...	...	...	132	1·22	80	·68	...	...
...	..	...	..	6	·31	10	·51	...	...
...	...	...	...	...	...	107	10·15	...	...
...	...	...	...	2	·05	179	4·19	...	...
...	...	...	...	111	10·86	15	1·47	...	...
...	...	...	...	...	...	202	17·18	...	...
...	...	...	..	...	...	65	7·85	...	...
...	...	...	...	...	...	58	9·30	...	...
...	...	...	...	...	...	590	18·49	...	...
...	...	...	...	...	...	210	17·34	...	...
...	...	...	...	...	...	191	17·33	...	...
...	...	...	...	26	1·86	110	7·84	...	...
...	...	...	...	2	·25	123	15·31	...	...
...	...	...	..	194	13·11	6	·41	...	...

ANNUAL FORM

1	2	11		12		13	
		Pneumonia.		Phthisis.		Other Respiratory diseases.	
No.	Districts and Towns.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS—*continued.*						
	Dharwar District.						
60	Dhárwár	17	·49	70	2·04	143	4·17
61	Hubli	10	·15	169	2·44	244	3·53
62	Gadag Bettigeri	10	·24	122	2·96	262	6·37
63	Ranebennur	...	...	35	2·52	46	3·30
64	Nawalgund	...	...	19	2·68	5	·71
	Bijapur District.						
65	Bijápur	22	·68	90	2·77	63	1·94
66	Bágalkot	...	...	31	1·59	62	3·19
67	Guledgud	...	...	29	1·97	47	3·18
68	Ilkal	4	·34	29	2·44	43	3·63
	Kanara District.						
69	Kárwar	...	...	15	1·04	8	·55
70	Kumta	...	...	8	·56	31	2·17
71	Gokarn	3	·36	14	1·69	9	1·08
72	Honáwar	...	...	5	·71	2	·29
73	Bhatkal ...	...	...	10	1·40	10	1·40
	Surat District.						
74	Surat	632	5·38	337	2·87	572	4·87
75	Bulsar	101	5·13	29	1·48	16	·81
76	Ránder	4	·38	20	1·90	19	1·80
	Broach District.						
77	Broach	25	·58	80	1·88	352	8·26
78	Jambusar	10	·98	9	·88	114	11·16
79	Ankleshwar	5	·43	8	·68	25	2·13
	Kaira District.						
80	Kaira	4	·48	6	·73	61	7·36
81	Mehmedabad	12	1·92	14	2·25	30	4·81
82	Nadiád	109	3·41	70	2·19	58	1·82
83	Borsad	4	·33	...	...	36	2·97
84	Anand	2	·18	...	...	21	1·91
85	Umreth	...	...	32	2·88	162	11·55
86	Dakore	7	·88	15	1·88	42	5·26
87	Kapadvanj	33	2·23	32	2·16	108	7·30

No. VI (*a*)—*contd.*

14		15		16	17			18	19
Dysentery.		Diarrhœa.		Deaths from child birth.	Deaths under 1 year.			Infant mortality rate per 1,000 births.	No
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.		
26	·76	44	1·28	10	52	57	109	128·54	60
32	·46	43	·62	5	151	85	236	115·57	61
14	·34	29	·71	5	171	109	280	199·15	62
1	·07	22	1·58	8	63	50	113	196·50	63
...	...	6	·34	...	13	11	24	109·09	64
39	1·20	26	·80	16	97	52	149	147·23	65
7	·36	63	3·23	5	84	64	148	198·66	66
2	·13	3	·21	9	77	86	163	246·97	67
...	...	2	·17	...	59	58	117	312·00	68
4	·28	10	·69	2	26	13	39	95·12	69
9	·63	19	1·33	9	32	19	51	131·11	70
32	3·85	...	...	5	17	15	32	121·21	71
1	·14	8	1·14	5	15	15	30	95·85	72
27	3·79	7	·98	6	14	14	28	115·79	73
38	·32	244	2·08	64	704	645	1,349	349·94	74
3	·15	9	·46	9	41	33	74	130·05	75
4	·38	1	·09	3	28	23	51	240·57	76
5	·12	41	·96	...	136	144	280	152·76	77
2	·20	3	·29	...	67	48	115	231·39	78
...	...	1	·08	...	54	38	92	193·68	79
7	·85	6	·73	...	22	22	44	170·54	80
4	·64	9	1·45	1	34	37	71	266·92	81
4	·13	5	·16	11	120	153	273	247·73	82
16	1·32	61	5·03	...	98	82	180	294·26	83
14	1·27	5	·45	...	43	32	75	244·30	84
1	·50	...	...	...	93	90	183	284·16	85
7	·88	15	1·88	5	46	46	92	320·56	86
...	...	11	·74	3	70	58	128	201·57	87

1	2	3	4		5	
No.	Districts and Towns.	Population according to Census of 1921.	Enteric Fever.		Measles.	
			Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS—*continued.*					
	Panch Mahals District.					
88	Godhra	26,969	...	...	...	...
89	Dohad	16,071	...	...	25	1·56
	Ahmedabad District.					
90	Ahmedabad	2,70,599	...	...	172	·64
91	Dhandhuka	8,056	...	...	1	·13
92	Viramgaon	26,252	...	...	1	·04
93	Dholka ...	12,513	...	...	10	·80
94	Ahmedabad Cantonment	1,745	...	...	...	...
	Karachi District.					
95	Karáchi	199,014	38	·19	373	1·87
96	Tattá	8,470	...	...	1	·12
97	Kotri	9,072	...	...	8	·88
98	Karáchi Cantonment	6,525	...	...	...	...
	Hyderabad District.					
99	Hyderabad	72,625	62	·85	102	1·41
100	Halla	5,757	...	...	...	...
101	Matiari	4,638	...	...	...	...
102	Hyderabad Cantonment	3,760	...	...	...	...
	Thar and Parkar District.					
103	Umarkot	4,199	...	...	...	...
104	Mirpurkhas	5,765	8	1·39	6	1·04
	Nawabshah District.					
105	Nawábshah	2,771	...	...	...	...
106	Tando Adam	12,966	...	...	7	·54
	Larkana District.					
107	Lárkána	17,700	5	·28	7	·40
108	Kambar	7,613	4	·53	5	·66
109	Ratodero	5,565	...	...	...	...
110	Sehwan	4,423	2	·45	...	...

No. VI (*a*)—*contd.*

6 Relapsing Fever.		7 Kala Azar.		8 Malaria.		9 Other Fevers.		10 Influenza.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	...	...	...	...	306	11·35	...	...
..	...	...	...	...	...	256	15·93	...	...
...	...	...	...	...	...	1,700	6·28	3	·01
...	...	...	...	...	...	90	11·17	...	...
...	...	...	...	...	...	385	14·66	...	...
...	...	...	...	...	...	172	13·74	...	...
...	...	...	...	...	...	30	17·19	...	...
...	...	...	...	2	·04	962	4·83	6	·03
...	...	...	...	14	1·65	50	5·91	...	...
...	...	...	...	62	6·84	1	·11	...	...
1	·15	...	...	4	·61	17	2·61	...	...
...	...	...	...	381	5·25	191	2·62	...	...
...	...	...	...	94	7·64	12	2·08	...	...
...	...	...	...	44	9·49	...	...	...	...
...	...	...	...	1	·26	21	5·29	...	...
...	...	...	...	43	10·24	...	...	...	...
...	...	...	...	57	9·89	...	...	4	·69
...	...	...	...	19	6·86	12	4·33	...	...
...	...	...	...	107	8·25	7	·54	...	...
...	...	...	...	221	12·48	...	...	...	...
...	...	...	...	113	14·84	42	5·51	...	...
...	...	...	...	32	5·75	149	26·77	...	...
...	...	...	...	54	12·21	3	·68	...	..

ANNUAL FORM

1	2	11		12		13	
		Pneumonia.		Phthisis.		Other Respiratory Diseases.	
No.	Districts and Towns.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	B—TOWNS—*continued.*						
	Panch Mahals District.						
88	Godhra	...	...	20	·74	...	...
89	Dohad	...	...	4	·25	7	·43
	Ahmedabad District.						
90	Ahmedabad	310	1·14	946	3·50	2,942	10·67
91	Dhandhuka	1	·12	20	2·48	43	5·34
92	Viramgaon	14	·53	41	1·56	210	8·00
93	Dholka	1	·08	25	2·00	40	3·20
94	Ahmedabad Cantonment	1	·57	3	1·72	2	1·15
	Karachi District.						
95	Karachi	716	3·59	447	2·25	761	3·83
96	Tatta	27	3·19	13	1·53	10	1·18
97	Kotri	14	1·55	10	1·10	1	·11
98	Karachi Cantonment	9	1·38	...	...	1	·15
	Hyderabad District.						
99	Hyderabad	527	7·25	211	2·91	162	2·23
100	Halla	1	·17	...	...	1	·17
101	Matiari	8	1·72	4	·86	...	...
102	Hyderabad Cantonment	1	·26	...	...	...	...
	Thar and Parkar District.						
103	Umarkot	54	12·86	9	2·14	1	·24
104	Mirpurkhas	51	8·85	11	1·91	7	1·21
	Nawabshah District.						
105	Nawábsháh	51	18·40	...	...	...	...
106	Tando Adam	10	·77	4	·31	1	·08
	Larkana District.						
107	Lárkána	14	·79	5	·28	...	...
108	Kambar	...	...	4	·53	...	...
109	Ratodero	..	...	...	...	1	·18
110	Sehwan	17	3·84	4	·90	1	·23

No. VI (*a*)—*contd.*

14		15		16	17			18	19
Dysentery.		Diarrhœa.		Deaths from child birth.	Deaths under 1 year.			Infant mortality rate per 1,000 births.	No.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.		
...	...	...	...	...	62	58	120	213·14	88
4	·25	4	·25	4	51	54	105	174·91	89
113	·42	395	1·46	150	1,976	1,853	3,829	343·69	90
...	...	5	·62	...	32	29	61	166·21	91
1	·04	10	·38	11	128	117	245	294·12	92
1	·08	16	1·28	...	47	54	101	178·76	93
...	...	1	·57	...	4	2	6	260·87	94
18	·09	212	1·06	127	1,136	992	2,128	255·80	95
...	...	4	·47	6	24	20	44	307·69	96
1	·11	...	...	3	14	11	25	203·25	97
3	·46	1	·15	...	8	10	18	83·72	98
44	·60	37	·51	31	469	436	905	301·77	99
...	...	...	...	2	17	12	29	239·66	100
...	...	...	...	3	9	1	10	100·00	101
...	...	...	...	...	4	7	11	268·29	102
1	·24	3	·71	4	7	9	16	280·70	103
2	·35	4	·69	9	12	10	22	1,047·62	104
...	...	...	...	2	11	9	20	322·58	105
...	...	...	...	4	19	22	41	155·30	106
4	·23	3	·17	32	107	88	195	292·79	107
...	...	1	·13	7	21	19	40	224·72	108
...	...	...	...	1	27	24	51	222·70	109
...	...	...	...	6	19	13	32	355·56	110

1	2	3	4		5	
No.	Districts and Towns.	Population according to Census of 1931.	Enteric Fever.		Measles.	
			Deaths.	Ratio.	Deaths.	Ratio.
	B—TOWNS—*concld.*					
	Sukkur District.					
111	Sukkur	42,046	...	...	2	·05
112	Shikárpur	55,347	38	·68	10	·18
113	Rohri	11,378	...	...	...	...
114	Garhi Yasin	6,375	...	...	2	·31
	Upper Sind Frontier District.					
115	Jacobabad	10,578	...	...	...	...
	Total of Towns ...	3,743,785	695	·19	1,905	·51
	Total for the Presidency ...	19,165,614	3,204	·17	4,233	·22

No. VI (*a*)—*concld.*

6 Relapsing Fever.		7 Kala Azar.		8 Malaria.		9 Other Fevers.		10 Influenza.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
...	...	...	...	...	...	610	14·51	...	...
...	...	...	...	76	1·38	684	11·45	...	...
...	...	...	...	148	12·48	...	...	...	...
...	...	...	...	114	17·89	14	2·19	...	...
...	...	...	...	...	...	160	14·18	...	...
4	·00	...	...	3,371	·90	19,969	5·33	201	·05
24	·00	...	...	49,821	2·60	156,703	8·18	578	·03

No.	2 Districts and Towns.	11 Pneumonia.		12 Phthisis.		13 Other Respiratory Diseases.	
		Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
	B.—TOWNS—*concluded.*						
	Sukkur District.						
111	Sukkur	19	·45	9	·21	7	·17
112	Shikárpur	46	·62	24	·43	22	·41
113	Rohri	16	1·41	5	·44	8	·70
114	Garhi Yasin	...	...	...	...	1	·16
	Upper Sind Frontier.						
115	Jacobabad	12	1·14	1	·09	...	...
	Total Towns ...	14,718	3·93	6,326	1·69	14,250	3·81
	Total for the Presidency ...	19,482	1·02	18,469	·96	53,152	2·77

No. VI (a)—*concld.*

14		15		16	17			18	19
Dysentery.		Diarrhœa.		Deaths from child birth.	Deaths under 1 year.			Infant mortality rate per 1,000 births.	No.
Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.		
2	·05	9	·21	27	121	100	221	170·92	111
7	·13	26	·47	115	306	264	570	317·90	112
...	...	12	1·06	9	42	36	78	213·11	113
...	...	...	...	...	29	22	51	250·00.	114
2	·19	...	...	16	40	22	62	268·40	115
1,377	·50	5,641	1·51	1,159	16,020	14,190	30,210	297·80	
6,517	·34	22,402	1·17	4,059	70,489	59,950	130,439	191·17	

ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the*

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		VILLAGES.							
No.	Districts.	Number in each District.	Number from which deaths from cholera were reported.	Number in each District.	Number from which deaths from cholera were reported.	January.	February.	March.	April.	May.	June.
	Western Registration District.										
1	East Khándesh ...	23	22	1,478	216	...	...	...	...	16	56
2	West Khándesh ...	10	8	1,242	43	...	...	1	...	...	...
3	Násik	19	14	1,667	140	1	...	...	...	...	...
4	Thána	15	1	1,546	1	...	...	...	...	...	...
5	Bombay Suburban ...	5	1	86	1	...	...	...	...	...	...
6	Kolába	13	5	1,482	9	...	...	...	...	...	...
7	City of Bombay ...	1	1	1	1	...	...	1	1	1	...
	Central Registration District.										
8	Ahmednagar... ...	15	12	1,346	66	...	...	...	...	...	...
9	Poona	20	14	1,157	29	3	1	2	2	4	...
10	Sholápur	10	10	718	78	...	...	...	...	22	19
11	Sátára	19	14	1,342	81	...	...	...	1	...	...
12	Ratnágiri	15	1	1,305	1	...	...	...	...	...	...
	Southern Registration District.										
13	Belgaum	15	7	1,069	40	...	...	...	...	...	5
14	Dhárwár	18	15	1,277	161	10	...	1	4	177	984
15	Bijápur	13	13	1,128	183	...	...	...	...	97	502
16	Kánara	16	1	1,264	3	...	...	...	...	...	...
	Gujarat Registration District.										
17	Surat	12	...	782	...	...	...	...	...	...	...
18	Broach	9	...	404	...	...	...	...	...	...	...
19	Kaira	15	...	579	...	...	...	...	...	...	...
20	Panch Mahála ...	7	...	668	...	...	...	...	...	...	...
21	Ahmedabad	13	3	871	6	...	...	...	...	...	...
	Sind Registration District.										
22	Karáchi	16	5	793	12	...	...	...	...	...	9
23	Hyderabad	11	6	862	13	...	...	...	...	...	...
24	Thar and Párkar ...	13	2	904	2	...	...	...	...	...	...
25	Nawábsháh	9	5	731	17	...	...	...	...	...	...
26	Lárkána	15	8	763	12	...	...	...	...	...	...
27	Sukkur...	12	2	671	2	...	...	...	...	...	...
28	Upper Sind Frontier.	6	2	410	2	...	...	...	...	...	...
	Total for the Presidency.	365	172	26,546	1,119	14	1	5	8	317	1,575

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1924.*

July.	August.	September	October.	November.	December.	6 — TOTAL. Male.	6 — TOTAL. Female.	6 — TOTAL. Total.	7 — RATIO OF DEATHS PER 1,000 OF POPULATION. Male.	7 — RATIO OF DEATHS PER 1,000 OF POPULATION. Female.	7 — RATIO OF DEATHS PER 1,000 OF POPULATION. Total.	8 — Mean ratio per 1,000 of previous five years.	9 — No.
493	1,182	246	34	...	...	970	1,057	2,027	1·77	1·99	1·88	0·62	1
7	14	123	42	2	...	97	92	189	·31	·30	·31	1·07	2
10	82	300	212	32	6	307	336	643	·73	·83	·78	1·13	3
...	...	9	...	...	...	3	6	9	·01	·02	·01	1·52	1
1	...	...	...	...	...	1	...	1	·01	...	·01	0·08	5
...	15	37	16	4	5	35	44	79	·12	·16	·14	2·80	6
3	21	2	1	1	3	27	7	34	·04	·02	·02	1·82	7
25	44	140	169	7	1	203	183	386	·56	·51	·53	1·40	
5	28	16	34	27	37	82	77	159	·16	·16	·16	1·19	9
105	176	140	59	60	6	323	264	587	·85	·73	·79	1·06	10
5	91	198	85	13	3	191	205	396	·37	·40	·39	0·91	11
...	...	...	4	...	...	1	3	4	·00	·00	·00	0·51	12
50	73	77	42	2	1	137	113	250	·28	·24	·26	·19	13
336	109	9	6	7	5	851	797	1,648	1·61	1·57	1·59	·25	14
378	139	59	134	39	4	708	644	1,352	1·75	1·65	1·70	·55	15
...	...	...	...	...	7	3	4	7	·01	·02	·02	·13	16
...	...	...	...	...	...	...	...	...	...	...	...	·80	17
...	...	...	...	...	...	...	...	...	...	...	...	·63	18
...	...	...	...	...	...	...	...	...	...	...	...	·20	19
...	...	...	...	...	...	...	...	...	...	...	...	·37	20
17	10	29	...	...	...	28	28	56	·06	·07	·06	·03	21
77	21	...	...	...	...	61	46	107	·20	·20	·20	·16	22
39	15	1	...	...	...	36	19	55	·12	·08	·10	·00	33
...	1	2	2	...	...	3	2	5	·01	·01	·01	·01	24
1	34	50	7	15	...	77	50	127	·33	·27	·30	0·01	25
5	60	31	1	...	...	54	43	97	·16	·16	·16	·03	26
...	4	...	...	...	...	2	2	4	·01	·01	·01	·07	27
...	2	...	10	2	...	9	5	14	·07	·05	·06	·00	28
1,557	2,123	1,469	878	211	78	4,209	4,027	8,236	·42	0·44	0·43	0·71	

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the*

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		VILLAGES.							
No.	Districts.	Number in each District.	Number from which deaths from Small-pox were reported.	Number in each District.	Number from which deaths from Small-pox were reported.	January.	February.	March.	April.	May.	June.
	Western Registration District.										
1	East Khándesh ...	23	20	1,478	448	161	319	438	356	210	96
2	West Khándesh ...	10	10	1,242	376	277	449	438	258	128	32
3	Násik	19	18	1,667	249	114	100	177	160	90	54
4	Thána	15	15	1,576	213	36	69	110	90	88	53
5	Bombay Suburban ...	5	4	86	12	...	1	12	14	13	7
6	Kolába	13	12	1,482	217	35	74	103	107	83	54
7	City of Bombay ...	1	1	1	1	49	114	280	230	201	138
	Central Registration District.										
8	Ahmednagar ...	15	13	1,346	76	21	24	39	27	12	8
9	Poona	20	20	1,157	129	82	149	204	216	141	74
10	Sholápur	10	10	718	37	26	62	54	31	24	23
11	Sátára	19	18	1,342	104	26	29	29	21	21	26
12	Ratnágiri	15	14	1,305	170	21	17	48	92	126	90
	Southern Registration District.										
13	Belgaum	15	9	1,069	21	...	...	3	2	5	4
14	Dhárwár	18	13	1,277	48	6	9	22	11	8	14
15	Bijápur	13	7	1,128	18	2	1	1	4	4	7
16	Kánara	16	9	1,264	14	...	3	2	1	8	1
	Gujarát Registration District.										
17	Surat	12	12	782	52	1	19	31	53	42	23
18	Broach	9	7	404	34	...	...	2	12	18	15
19	Kaira	15	14	579	39	18	74	103	68	10	7
20	Panch Mahális ...	7	3	668	8	...	3	8	7	8	8
21	Ahmedabad	13	9	871	54	3	22	154	296	204	96
	Sind Registration District.										
22	Karáchi	16	7	793	8	...	6	13	51	33	13
23	Hyderabad	11	5	862	25	28	61	115	75	59	15
24	Thar and Párkar ...	13	6	904	8	...	6	...	...	...	2
25	Nawábsháh	9	5	731	6	...	...	...	7	16	8
26	Lárkána	15	4	763	4	...	...	...	...	...	2
27	Sukkur	12	3	671	4	...	...	...	...	...	1
28	Upper Sind Frontier	6	1	410	1	...	...	...	...	...	...
	Total for the Presidency.	365	269	26,546	2,376	996	1,611	2,491	2,239	1,552	871

N.B.—Small-pox should not include Measles, Chicken-Pox, etc.

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1924.*

July.	August.	September.	October.	November.	December.	6 TOTAL. Male.	Female.	Total.	7 NUMBER OF THESE DEATHS AMONG CHILDREN. Under 1 year.	Under 10 years.	8 RATIO OF DEATHS PER 1,000 OF POPULATION. Male.	Female.	Total.	9 Mean ratio per 1,000 for previous five years.	10 No.
56	24	8	1	...	11	856	824	1,680	767	765	1·57	1·56	1·56	·12	1
21	5	3	3	1	5	787	833	1,620	568	1,019	2·54	2·75	2·64	·34	2
43	24	14	4	1	3	384	400	784	231	432	·92	·98	·95	·24	3
17	22	24	20	17	24	299	271	570	134	306	·77	·74	·75	·14	4
5	4	3	...	...	1	28	32	60	17	27	·32	·30	·39	·05	5
23	56	26	13	12	24	310	305	615	153	398	1·11	1·08	1·09	·12	6
73	44	16	11	10	15	722	509	1,231	218	509	·96	1·28	1·07	·38	7
8	12	5	3	1	4	81	83	164	42	54	·22	·23	·23	·06	8
27	9	9	10	5	10	459	477	936	293	534	·92	·98	·95	·20	
32	24	13	23	18	32	191	171	362	81	230	·50	·48	·49	·23	10
17	9	7	6	5	10	101	105	206	77	47	·20	·20	·20	·07	11
79	38	24	14	21	32	305	297	602	125	272	·58	·47	·52	·08	12
5	3	...	3	5	13	17	26	43	11	14	·04	·05	·04	·11	13
15	6	4	4	5	19	58	65	123	26	54	·11	·13	·12	·13	14
2	1	...	1	5	8	17	19	36	9	13	·04	·05	·05	·12	15
4	1	...	..	1	2	9	14	23	2	5	·04	·07	·06	·54	16
5	...	...	...	1	...	100	75	175	58	81	·30	·22	·26	·10	17
19	5	2	6	3	7	48	41	89	22	54	·30	·28	·29	·04	18
8	...	...	...	...	...	140	148	288	113	137	·37	·45	·41	·08	19
...	..	..	..	...	...	17	17	34	6	19	·09	·09	·09	·05	20
34	3	3	2	5	2	410	414	824	341	381	·87	1·00	·93	·08	21
9	6	9	...	21	6	97	70	167	28	40	·32	·31	·31	·28	22
10	3	...	...	...	...	174	192	366	144	182	·55	·77	·65	·18	23
2	1	3	1	1	12	16	12	28	8	12	·07	·07	·07	·14	24
5	7	10	11	...		34	30	64	7	16	·15	·16	·15	·13	25
...	5	...	...	...	3	4	6	10	1	3	·01	·02	·02	·22	26
6	1	1	5	11	17	24	18	42	15	16	·09	·08	·8	·08	27
...	.	...	...	2	8	6	4	10	2	6	·04	·04	·04	·10	28
525	313	184	141	151	268	5,694	5,458	11,152	3,532	5,606	·57	0·60	0·58		

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the*

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		VILLAGES.							
No	Districts.	Number in each District.	Number from which deaths from fevers were reported.	Number in each District.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.
	Western Registration District.										
1	East Khándesh ...	23	23	1,478	1,370	829	821	1,377	1,709	1,608	1,253
2	West Khándesh ...	10	10	1,242	1,069	577	571	697	727	554	456
3	Násik	19	19	1,667	1,424	678	728	766	919	677	655
4	Thána	15	15	1,576	1,459	1,129	938	1,012	958	860	818
5	Bombay Suburban.	5	4	86	75	143	122	127	95	103	71
6	Kolába	13	13	1,482	1,295	886	798	917	771	644	591
7	City of Bombay ...	1	1	1	1	869	338	354	309	251	221
	Central Registration District.										
8	Ahmednagar ...	15	15	1,346	1,009	333	277	398	425	407	334
9	Poona	20	20	1,157	1,088	920	866	1,049	1,038	1,031	846
10	Sholápur	10	10	718	587	686	676	690	834	1,076	817
11	Sátára	19	19	1,342	944	764	663	893	918	986	822
12	Ratnágiri	15	15	1,305	1,163	1,058	904	882	774	715	552
	Southern Registration District.										
13	Belgaum	15	15	1,069	954	444	478	662	627	624	496
14	Dhárwár	18	18	1,277	1,178	973	1,009	1,339	1,123	911	882
15	Bijápur	13	13	1,128	1,046	698	737	1,024	926	918	798
16	Kánara	16	16	1,264	949	413	380	361	304	327	330
	Gujarát Registration District.										
17	Surat	12	12	782	698	376	374	422	385	391	381
18	Broach	9	9	404	379	247	250	317	337	349	315
19	Kaira	15	15	579	551	439	484	797	765	546	467
20	Panch Mahális ...	7	7	668	577	273	290	424	426	280	250
21	Ahmedabad ...	13	13	871	837	776	870	1,101	1,036	811	644
	Sind Registration District.										
22	Karáchi	16	16	793	724	690	685	438	417	364	280
23	Hyderabad ...	11	11	862	862	870	695	525	505	453	388
24	Thar and Párkar...	13	13	904	904	750	782	648	564	409	463
25	Nawabshah ...	9	9	731	731	906	650	633	440	557	397
26	Lárkána	15	15	763	763	981	608	506	492	611	478
27	Sukkur	12	12	671	671	1,009	555	531	436	578	495
28	Upper Sind Frontier	6	6	410	410	508	247	222	239	198	140
	Total for the Presidency ...	365	364	26,546	23,628	18,725	16,946	19,112	18,489	17,229	14,638

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1924.*

July.	August.	September.	October.	November.	December.	6 TOTAL. Male.	Female.	Total.	7 RATIO OF DEATHS PER 1,000 OF POPULATION. Male.	Female.	Total.	8 Mean ratio per 1,000 of previous five years.	9 No.
1,651	2,365	2,105	1,654	1,122	816	8,566	8,744	17,310	15·70	16·50	16·10	13·58	1
574	899	867	769	722	590	3,931	4,092	8,023	12·70	13·49	13·09	12·70	2
768	885	924	881	1,046	818	4,961	4,779	9,743	11·86	11·75	11·80	15·21	3
578	811	871	840	1,588	1,262	6,048	5,667	11,715	15·58	15·37	15·48	20·94	4
94	111	108	99	152	144	751	618	1,369	8·57	9·67	9·04	6·22	5
567	540	502	463	849	1,069	4,299	4,298	8,597	15·39	15·18	15·28	19·08	6
197	303	350	446	415	314	2,232	1,635	3,867	2·92	4·12	3·37	4·98	7
401	452	488	492	486	312	2,583	2,232	4,805	7·12	6·35	6·64	10·78	8
978	917	923	860	891	906	6,043	5,282	11,325	12·07	10·81	11·47	12·62	9
989	1,020	985	959	876	727	5,365	4,970	10,335	14·03	13·83	13·94	13·89	10
905	926	942	847	839	761	5,541	4,728	10,269	10·84	9·19	10·01	12·62	11
646	658	618	724	774	957	4,458	4,804	9,262	8·49	7·63	8·03	10·59	12
533	505	476	452	525	542	3,295	3,071	6,366	6·80	6·60	6·70	6·54	13
876	811	797	931	1,275	1,421	6,283	6,098	12,381	11·69	12·01	11·95	9·03	14
888	796	783	842	782	701	5,014	4,882	9,896	12·38	12·48	12·43	10·65	15
342	348	334	314	401	467	2,084	2,237	4,321	10·31	11·32	10·76	12·01	16
391	421	424	438	555	480	2,462	2,576	5,038	7·30	7·65	7·47	9·63	17
333	368	331	408	434	314	1,976	2,027	4,003	12·46	13·60	13·03	13·31	18
549	597	646	656	578	395	3,574	3,345	6,919	9·41	10·10	9·73	9·82	19
327	368	400	375	403	326	2,167	1,975	4,142	11·20	10·88	11·05	11·88	20
709	835	984	1,113	1,081	893	5,664	5,189	10,853	11·96	12·53	12·22	14·93	21
225	181	230	348	576	485	2,626	2,283	4,909	8·69	10·01	9·25	9·14	22
377	284	342	594	941	1,057	3,676	3,160	7,036	12·23	12·6	12·40	12·02	23
308	196	310	362	574	554	3,298	2,620	5,918	14·92	14·95	14·93	12·24	24
317	201	356	726	888	702	3,816	3,017	6,833	16·32	16·32	16·32	11·95	25
371	456	576	697	1,209	1,010	4,361	3,632	7,993	13·17	13·62	13·37	17·80	26
437	469	521	889	1,354	1,095	4,463	3,905	8,368	15·85	17·57	16·43	13·66	27
144	144	172	261	398	304	1,629	1,338	2,967	12·13	12·59	12·33	12·10	28
15,473	16,956	17,372	18,459	21,734	19,431	111,369	103,194	214,563	11·08	11·32	11·20	12·00	

ANNUAL FORM No. X.—DEATHS *registered*
PRESIDENCY *during each*

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		VILLAGES.							
No.	Districts.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	Number in each District.	Number from which deaths from Dysentery and Diarrhœa were reported.	January.	February.	March.	April.	May.	June.
	Western Registration District.										
1	East Khándesh ...	23	23	1,478	478	35	36	63	63	65	102
2	West Khándesh ..	10	10	1,242	153	7	10	10	14	13	14
3	Násik	19	19	1,667	487	39	33	21	45	45	67
4	Thána	15	15	1,576	212	36	33	24	18	16	16
5	Bombay Suburban .	5	5	86	46	21	15	13	11	10	5
6	Kolába...	13	13	1,482	636	38	23	24	24	25	17
7	City of Bombay ..	1	1	1	1	368	285	260	242	239	170
	Central Registration District.										
8	Ahmednagar	15	15	1,346	648	89	89	77	104	157	161
9	Poona	20	20	1,157	547	107	98	113	104	133	138
10	Sholápur	10	10	718	366	104	63	70	61	100	110
11	Sátára	19	19	1,342	669	79	72	59	69	100	140
12	Ratnágiri	15	15	1,305	377	88	98	55	47	42	50
	Southern Registration District.										
13	Belgaum	15	15	1,069	632	118	108	114	175	209	318
14	Dhárwár	18	18	1,277	345	60	48	71	87	98	152
15	Bijápur	13	13	1,128	532	71	61	76	89	114	190
16	Kánara	16	16	1,264	310	73	54	53	50	69	69
	Gujarát Registration District.										
17	Surat	12	12	782	129	26	19	26	36	31	57
18	Broach...	9	9	404	86	9	5	14	7	10	12
19	Kaira	15	15	579	211	26	32	37	47	55	48
20	Panch Mahâls ...	7	6	668	75	3	12	6	2	13	6
21	Ahmedabad ...	13	13	871	134	47	43	57	46	30	38
	Sind Registration District.										
22	Karáchi	16	11	703	15	10	2	18	22	24	10
23	Hyderabad	11	7	862	10	6	9	5	5	6	8
24	Thar and Párkar ..	13	9	904	9	1	...	1	2	8	...
25	Nawabshah	9	6	731	8	2	1	...	...	3	...
26	Lárkána	15	9	763	12	1	1	2	...	...	...
27	Sukkur...	12	9	671	9	5	2	4	8	5	1
28	Upper Sind Frontier .	6	5	410	5	4	...	...	1	...	...
	Total for the Presidency	365	338	26,546	7,082	1,473	1,252	1,273	1,379	1,620	1,869

from DYSENTERY *and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY *month of the year 1924.*

July.	August.	September.	October.	November.	December.	6. Total. Male.	Total. Female.	Total. Total.	7. Ratio of Deaths per 1,000 of Population. Male.	Female.	Total.	8. Mean ratio per 1,000 of previous five years.	9. No.
329	553	432	258	125	88	1,052	1,097	2,149	1·93	2·07	2·00	1·13	1
41	81	88	64	27	19	202	166	368	·66	·61	·63	·45	2
144	244	327	237	179	111	811	681	1,492	1·94	1·67	1·81	1·32	3
41	70	64	48	33	49	244	208	452	·63	·56	·60	·64	4
18	34	20	26	20	24	125	82	207	1·43	1·28	1·37	·58	5
34	71	48	33	35	56	238	190	428	·85	·67	·76	·98	6
276	476	337	321	263	276	1,994	1,519	3,513	2·15	3·83	3·06	3·70	7
301	336	321	309	212	137	1,256	1,037	2,293	3·46	2·97	3·17	2·85	8
312	332	357	260	204	156	1,289	1,003	2,292	2·57	2·06	2·32	2·32	9
281	400	390	340	223	153	1,231	1,064	2,295	3·22	2·96	3·09	2·57	10
261	365	577	294	193	115	1,114	1,010	2,124	2·16	1·96	2·07	2·13	11
78	117	103	94	117	121	563	447	1,010	1·07	·71	·88	1·00	12
427	442	423	358	236	167	1,610	1,564	3,004	3·12	3·41	3·26	2·73	13
200	195	120	110	86	97	651	613	1,264	1·23	1·21	1·22	1·15	14
282	316	260	257	156	104	953	1,032	1,985	2·35	2·64	2·49	2·27	15
79	119	111	89	74	98	496	432	928	2·43	2·19	2·31	2·37	16
82	92	53	49	39	42	291	261	552	·86	·77	·82	1·00	17
25	57	34	9	11	9	109	93	202	·69	·62	·66	·82	18
93	155	124	72	46	33	424	344	768	1·12	1·04	1·08	1·09	19
11	31	42	13	7	8	72	82	154	·37	·45	·41	·61	20
88	159	127	81	58	43	450	366	816	·95	·88	·92	1·09	21
9	43	55	23	18	20	145	109	254	·48	·48	·48	·39	22
16	13	19	8	10	...	65	40	105	·25	·16	·19	·18	23
...	5	2	1	4	1	13	12	25	·06	·07	·06	·05	24
1	2	3	...	1	2	10	5	15	·04	·03	·04	·04	25
...	1	2	2	7	3	31	8	19	·03	·03	·03	·04	26
10	7	6	9	10	17	51	33	84	·18	·14	·17	12	27
...	...	12	1	...	...	9	9	18	07	·08	·07	·03	28
3,490	4,654	4,245	3,366	2,394	1,942	15,379	13,547	28,926	1·53	1·49	1·51	1·43	

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY *month of the*

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		VILLAGES.							
No.	Districts.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	Number in each District.	Number from which deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.	June.
	Western Registration District.										
1	East Khándesh ...	23	23	1,478	953	311	329	389	361	263	289
2	West Khándesh ...	10	10	1,242	617	188	159	196	175	136	100
3	Násik ...	19	19	1,667	925	326	309	319	317	237	275
4	Thána ...	15	15	1,576	504	163	139	130	113	109	115
5	Bombay Suburban ...	5	5	36	34	24	29	26	31	25	25
6	Kolába ...	13	13	1,482	259	143	107	132	109	89	74
7	City of Bombay ...	1	1	1	1	1,566	1,522	1,620	1,327	1,198	1,061
	Central Registration District.										
8	Ahmednagar ...	15	15	1,346	935	346	280	251	280	269	264
9	Poona ...	20	20	1,157	743	552	515	523	522	494	411
10	Sholápur ...	10	10	718	392	210	169	179	156	181	179
11	Sátára ...	19	19	1,342	533	193	146	152	148	161	169
12	Ratnágiri ...	15	15	1,305	991	469	442	394	371	386	309
	Southern Registration District.										
13	Belgaum ...	15	15	1,069	675	270	275	317	266	248	217
14	Dhárwár ...	18	18	1,277	714	330	318	453	332	313	313
15	Bijápur ...	13	13	1,128	619	194	241	282	266	243	240
16	Kánara ...	16	16	1,264	357	74	80	103	66	63	45
	Gujarát Registration District.										
17	Surat ...	12	12	782	694	556	611	670	620	590	495
18	Broach ...	9	9	404	359	272	246	293	255	211	197
19	Kaira ...	15	15	579	536	493	478	671	588	481	491
20	Panch Mahále ...	7	7	668	381	128	121	172	98	71	73
21	Ahmedabad ...	13	13	871	571	674	648	739	651	517	484
	Sind Registration District.										
22	Karáchi ...	16	15	798	72	438	346	304	173	124	97
23	Hyderabad ...	11	11	862	119	298	180	180	115	111	67
24	Thar and Párkar ...	13	13	904	302	330	280	194	143	32	23
25	Nawábshah ...	9	9	731	76	155	67	47	33	36	15
26	Lárkána ...	13	13	763	25	31	40	13	13	5	4
27	Sukkur ...	12	12	671	19	33	31	15	15	12	8
28	Upper Sind Frontier.	6	6	410	26	20	8	6	8	1	2
	Total for the Presidency.	365	362	26,546	2,432	8,607	8,125	8,780	7,57	6,606	6,042

DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each year 1924.*

July.	August.	September.	October.	November.	December.	6 TOTAL. Male.	Female.	Total.	7 RATIO OF DEATHS PER 1,000 OF POPULATION. Male.	Female.	Total.	8 Mean ratio per 1,000 of previous five years.	9 No.
391	531	501	503	431	395	2,401	2,293	4,694	4·40	4·33	4·37	3·97	1
144	199	217	197	196	160	1,103	964	2,067	3·56	3·18	3·37	3·22	2
312	367	392	395	374	289	1,996	1,917	3,913	4·77	4·71	4·74	4·96	3
105	120	170	195	206	199	1,019	745	1,764	2·62	2·02	2·34	1·70	4
26	22	35	27	24	43	201	136	337	2·30	2·13	2·23	1·24	5
93	126	183	103	183	195	939	639	1,578	3·36	2·26	2·81	2·28	6
1,060	1,228	1,279	1,500	1,256	1,204	9,012	6,749	15,761	11·98	17·01	13·72	18·01	7
302	357	420	484	400	304	2,020	1,917	3,937	5·57	5·31	5·44	5·45	8
524	561	598	597	568	498	3,280	3,083	6,363	6·55	6·33	6·44	6·31	9
176	209	176	230	225	186	1,114	1,162	2,276	2·91	3·23	3·07	2·68	10
181	229	237	232	211	174	1,126	1,107	2,233	2·20	2·15	2·18	1·87	11
305	386	402	420	453	488	2,688	2,187	4,875	5·12	3·48	4·22	4·41	12
260	296	270	263	280	245	1,731	1,476	3,207	3·57	3·17	3·38	3·07	13
334	327	318	307	292	302	1,954	1,985	3,939	3·70	3·91	3·80	3·20	14
260	248	230	265	211	219	1,509	1,390	2,899	3·72	3·55	3·64	2·05	15
59	52	66	74	70	80	469	363	832	2·30	1·84	2·07	1·73	16
525	501	488	493	677	695	3,703	3,218	6,921	10·98	9·55	10·27	10·29	17
240	262	243	247	202	172	1,500	1,340	2,840	9·46	6·98	9·23	8·82	18
574	646	684	624	511	383	3,720	2,904	6,624	9·80	8·77	9·32	9·27	19
68	96	82	79	91	81	708	452	1,160	3·66	2·49	3·10	2·96	20
521	589	638	617	559	553	4,119	3,071	7,190	8·70	7·41	8·10	8·91	21
103	125	116	121	133	217	1,348	949	2,297	4·46	4·16	4·33	3·12	22
70	66	64	79	97	54	783	608	1,391	2·47	2·43	2·45	1·89	23
11	8	12	6	21	67	649	487	1,136	2·94	2·78	2·87	·92	24
7	9	8	4	21	37	261	183	444	1·12	·99	1·06	·56	25
4	8	5	7	6	9	102	43	145	·31	·16	·24	·35	26
10	10	17	18	13	29	145	66	211	·52	·29	·41	·39	27
1	2	2	7	5	7	42	27	69	·31	·25	·29	·18	28
6,771	7,580	7,859	8,135	7,666	7,285	49,642	41,461	91,103	4·94	4·56	4·75	4·71	

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the*

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		VILLAGES.							
No.	Districts.	Number in each District.	Number from which deaths from Plague were reported.	Number in each District.	Number from which deaths from Plague were reported.	January.	February.	March.	April.	May.	June.
	Western Registration District.										
1	East Khándesh ...	23	20	1,478	118	678	593	228	19	...	...
2	West Khándesh ...	10	4	1,242	6	19	19	3	2	..	...
3	Násik ...	19	2	1,667	2	...	...	...	...	...	...
4	Thána ...	15	9	1,576	27	35	50	66	28	8	...
5	Bombay Suburban ...	5	2	86	4	...	4	5	3	...	...
6	Kolába ...	13	4	1,482	11	16	10	16	2	...	...
7	City of Bombay ...	1	1	1	1	6	46	165	117	45	7
	Central Registration District.										
8	Ahmednagar ...	15	5	1,346	14	26	29	3	...	1	...
9	Poona ...	20	9	1,157	25	54	33	11	7	...	...
10	Sholápur ...	10	6	718	36	286	220	73	...	...	...
11	Sátára ...	19	17	1,342	117	405	229	106	8	...	...
12	Ratnágiri ...	15	6	1,305	27	57	127	125	76	39	9
	Southern Registration District.										
13	Belgaum ...	15	14	1,069	98	308	207	151	29	30	9
14	Dhárwár ...	18	14	1,377	60	236	139	53	4	6	2
15	Bijápur ...	13	6	1,128	24	94	153	62	20	5	...
16	Kánara ...	16	2	1,264	6	5	11	11	12	9	3
	Gujarát Registration District.										
17	Surat ...	12	..	782	...	...	...	...	...	...	...
18	Broach ...	9	...	404	...	..	...	...	...	...	...
19	Kaira ...	15	...	579	..	.	..	...	...	...	...
20	Panch Mahals ...	7	...	668	...	...	...	...	.	..	...
21	Ahmedabad ...	13	...	871	...	...	...	...	...	..	...
	Sind Registration District.										
22	Karáchi ...	16	1	793	1	1	2	26	40	35	6
23	Hyderabad ...	11	1	862	1	..	...		1	...	...
24	Thar and Párkar ...	13	...	904	...	..	...	...	...	...	...
25	Nawábshah ...	9	...	731	...	...	...	...	...	...	..
26	Lárkána ...	15	...	763	..		..	..	...	...	...
27	Sukkur ...	12	2	671	2		...	...	...	...	..
28	Upper Sind Frontier.	6	..	410	...	..	...	1	1	...	...
	Total for the Presidency ...	365	125	26,546	578	2,326	1,863	1,105	369	178	36

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Government of Maharashtra
on 22 July, 2017

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1924.*

July.	August.	September.	October.	November.	December.	6 TOTAL. Male.	Female.	Total.	7 RATIO OF DEATHS PER 1,000 OF POPULATION. Male.	Female.	Total.	8 Mean ratio per 1,000 of previous five years.	9 No.
...	2	18	69	207	301	1,019	1,096	2,115	1·87	2·07	1·97	1·73	1
...	...	...	...	...	...	17	26	43	·05	·09	·07	1·23	2
...	...	...	1	1	...	...	2	2	...	·00	·00	·09	3
3	4	9	6	5	15	130	99	229	33	27	·30	·36	4
...	...	...	...	...	...	9	3	12	·10	·05	·08	·42	5
5	20	39	4	1	2	67	48	115	24	·17	·20	·17	6
5	14	...	...	1	3	290	119	409	·39	·30	·36	·48	7
...	...	...	37	65	43	94	112	206	·26	·31	·28	·04	8
...	1	4	5	...	6	63	58	121	·13	·12	·12	·72	9
...	1	9	72	158	141	492	468	960	1·29	1·30	1·29	·9	10
8	110	235	365	318	262	931	1,156	2,087	1·82	2·25	·03	2·44	11
12	56	9	1	39	48	298	309	607	·57	·49	·53	·11	12
11	25	45	66	63	31	444	531	975	·92	1·14	1·0	1·94	13
11	4	27	51	91	127	332	419	751	·63	·83	·72	3·17	14
...	...	2	12	24	37	165	244	409	·41	·62	·51	·17	15
...	..	.	...	...	..	23	28	51	·11	·14	·13	·24	16
...	...	...	..	...	...	...	...	...	...	...	...	·04	17
...	..	...	..	...	...	...	...	...	...	...	...	·03	18
...	...	...	...	...	...	...	...	...	...	...	...	·01	19
...	...	...	..	...	...	..	...	...	...	...	...	...	20
...	...	...	...	..	...	...	...	...	...	...	...	·00	21
...	2	5	1	...	1	68	51	119	·22	·22	·22	·77	22
...	...	...	...	...	..	...	1	1	...	·00	·00	·01	23
...	...	..	...	...	...	...	...	...	...	...	...	·01	24
...	...	...	...	...	...	..	...	...	...	...	...	·01	25
...	...		...	...	...	...	...	...	...	...	...	..	26
...	...	...	...	...	..	1	1	2	·00	·00	·00	·00	27
...	...	...	...	...	...	...	...	...	...	...	...	...	28
55	239	452	699	973	1,019	4,443	4,771	9,214	·44	·52	·48	·73	

P 1—15 *ap*

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